DOCUMENT RESUME

ED 302 012 EC 211 809

TITLE	Handbook for Conducting Student Follow-Up Studies: Materials and Procedures for Collecting Data on the Activities and Views of Former Students Over a Two Year Post-Training Period.
INSTITUTION	North Orange County Regional Occupational Program, Anaheim, CA.; Riverside County Dept. of Education, Calif.
SPONS AGENCY	California State Dept. of Education, Sacramento. Education Transition Center.
PUB DATE	88
GRANT	ETC-a.1.4; ETC-a.3.3.03; ETC-a.3.3.08; ETC-b.2.1
NOTE	95p.; Educational Research Associates and Pacific Management and Research Associates also collaborated in the project.
AVAILABLE FROM	Resources in Special Education (RiSE), 650 University Ave., Room 201, Sacramento, CA 95825.
PUB TYPE	Guides - Non-Classroom Use (055)
EDRS PRICE	MF01 Plus Postage. PC Not Available from EDRS.
DESCRIPTORS	Adults; Computer Oriented Programs; *Data Analysis; Data Collection; *Disabilities; Educational Assessment; Employment; *Followup Studies; *Graduate Surveys; Management Information Systems; Outcomes of Education; Quality of Life; Questionnaires; *Research Design; Sampling; School Surveys; Secondary Education; Special Education; Success; *Transitional Programs
IDENTIFIERS	*Special Needs Students

ABSTRACT

This handbook provides survey questionnaires and procedures to guide users in the conduct of follow-up studies to assess the transition success of special education and non-special education students. It focuses on collecting three types of data (employment activities, quality of life, and goal achievement) for special education students and general education students just prior to their graduation and over the following 2 years. The basic laws of polling are explained in an overview of what constitutes good survey practice, what to avoid doing, and how to conduct quality survey research with limited resources. This is followed by a "cookbook" of procedures to follow and steps to take in order to collect good data, including how to establish a management information system and a data-collection system. Specific recommendations are also offered about computerization of the data collection, such as approaches for storing and analyzing data. The appendices include in-class questionnaires, telephone interview forms, face-to-face interview forms, consent agreements, and other materials necessary to conduct research about two different groups of students over 2 years of transition. (JDD)

****
* Reproductions supplied by EDRS are the best that can be made *
* from the original document. *
****

ED302012

U.S. DEPARTMENT OF EDUCATION
Office of Educational Research and Improvement
EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)
☑ This document has been reproduced as received from the person or organization originating it.
☐ Minor changes have been made to improve reproduction quality.
• Points of view or opinions stated in this document do not necessarily represent official OERI position or policy.

Handbook for Conducting Student Follow-Up Studies:

Materials and Procedures for Collecting Data on the Activities and Views of Former Students Over a Two Year Post-Training Period

Education Transition Center

ETC

Program, Curriculum, and Training Unit
California State Department of Education
Special Education Division
Sacramento, California

"PERMISSION TO REPRODUCE THIS MATERIAL IN MICROFICHE ONLY HAS BEEN GRANTED BY

Patricia Winget

TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)."

EC211809

BEST COPY AVAILABLE

Handbook for Conducting Student Follow-up Studies:

Materials and Procedures for Collecting Data on the Activities and Views of Former Students Over a Two Year Post-Training Period

Grant Number: a.1.4
Educational Research Associates

Grant Number: a.3.3.03
Riverside County Office of Education

Grant Gumber: a.3.3.08
Pacific Management and Research Association

Grant Number: b.2.1
North Orange County Regional Occupational Program

Education Transition Center

Program, Curriculum, and Training Unit
California State Department of Education
Special Education Division
Sacramento, California
1988

This publication was funded by the Education Transition Center (ETC) under the direction of the Program, Curriculum, and Training Unit, Special Education Division, California State Department of Education.

All rights reserved. No part of this book may be reproduced or utilized in any form or by any means, without permission in writing from the publisher. Copies of this publication are available on loan from Resources in Special Education (RiSE), 650 University Avenue, Room 201, Sacramento 95825.

© Copyright 1988 by Education Transition Center.

Handbook for Conducting Student Follow-up Studies:

Materials and Procedures for Collecting Data on the Activities and Views of Former Students Over a Two Year Post-Training Period

A Project Conducted By:

a.1.4 Rita Marinoble & Associates
Rita Marinoble, Project Director
Judy Hegenauer, Project Consultant

a.3.3.08 Pacific Management and Research Associates
Fred Best, Project Director
Jon Ebeling, Senior Consultant
Frederica Shockley, Senior Consultant

a.1.2.03 Riverside County Office of Education
Louise Burton, Consulting Director
Robin Faigan, Project staff
Rebecca Towner, Project Staff
Tom Wojciehowski, Project Consultant

b.2.1 North Orange County Regional Occupational Program
Donald Cardinal, Project Director
David Drew, Senior Consultant
David Mank, Senior Consultant

For:

The California State Department of Education
Education Transition Center
Dr. Patricia Kearly, Coordinator
Sacramento, California

The research team wishes to express special recognition to Dr. Louise Burton, who had primary responsibility for extensive outreach and development of the survey questionnaires; and Dr. Jon Ebeling and Dr. Frederica Shockley, who had primary responsibility for developing the handbook of data collection procedures.

Letter of Transmittal

The collaborative grant team on follow-up systems and quality indicators submits this ***Handbook for Conducting Student Follow-up Studies***.

This handbook provides survey questionnaires and procedures to guide users in the conduct of follow-up studies to assess the transition success of special education and non-special education students.

The collaborative grant team emphasizes that this product is a working report that provides functional resources for conducting student follow-up studies. However, it requires full pilot testing and wider review before it will be fully operational.

Fred J. Best
Pacific Management and Research Associates

Louise Burton
Consultant to Riverside County Office of Education

Donald Cardinal
North Orange County Regional Occupational Program

Rita Marinoble
Educational Research Associates

Table of Contents

Title Page i
Project Task Force ii
Letter of Transmittal iii
Table of Contents iv
Acknowledgements v

I. INTRODUCTION

What are Follow-up Studies 1.1
The Role of this Handbook 1.1
The Benefits of Using this Handbook 1.2
Outline of the Handbook 1.3
Questions 1.4

II. BACKGROUND FOR FOLLOW-UP SURVEY RESEARCH

Why Read Further 2.1
There's No Free Lunch! 2.2
How Wrong Can You Be? 2.5
Don't Let 'Em Get Away 2.7
Representative of What? 2.9
Two Ways to Skin a Cat 2.11
Straight from the Horses Mouth 2.13
To the Field! 2.15

III. COLLECTING FOLLOW-UP DATA

What does this Follow-up Handbook Do? 3.1
Determine the Scope of Data Collection 3.2
Develop Institutional Liaisons and Specify Sampling Goals 3.13
Assess Resource Needs and Finalize Goals 3.16
Collect Baseline Data and Prepare for Follow-up Surveys 3.23
Collect Follow-up Data 3.28
Prepare for Data Entry into a Computer 3.37
Use of Computers for Data Storage and Analysis 3.37

IV. GUIDELINES FOR ANALYZING DATA WITH COMPUTERS

Entering Data into Computer Files 4.1
Analyzing Follow-up Data 4.2

APPENDICES

Acknowledgements

The Project Task Force expresses appreciation to the following persons for their willingness to share information and advice concerning the development of this report:

Charles Abrams, Decision Research
Les Axelrod, State Department of Education
Linda Bailey, Riverside County Office of Educ
Nancy Ball, Superior Type
Melba Boles, L.A. Unified School District
Betty Brewer, Washington Unified School Dist
Otilia Brown, North Orange County ROP
Jeff Cohen, State Department of Education
Gabrial Cortina, L.A. Unified School District
Xavier DelBuono, DelBuono & Associates
Frank Dolan, S.F. Unified School District
David Drew, Claremont Graduate School
Gordon L. Duck, State Department of Education
Patricia Dougan, State Department of Education
Mary Ann Earl, Riverside County Office of Educ
Robert Gaylord-Ross, S.F. State University
Lillian Goodman. L.A. Unified School District
Elaine Grady, S.F. Unified School District
John Grisafe, Oxnard Office of Education
Lynn Geisler, VOICE, State Dept of Education
Julie Hawthorne, Pacific Management and Research
Karl Hurd, Dept of Developmental Services
Maureen Hurley, Pacific Management and Research
Julie Jackson, Dept of Developmental Services
Heather Keaney, State Department of Education
Gerald Kilbert, State Department of Education
Charles Le Roy, San Bernadino School District
Edna McGlothlin, Chico Unified School District
Dale McIntire, L.A. Unified School District
David Mank, University of Oregon
David Monti, Dept of Development Council
Katherine Moran, Education Transition Center
Joe Pasanella, Santa Barbara Unified School Dist
Rita Patterson, Riverside County Office of Educ
Linda Pepitone, Butte County Office of Education
Elaine Portnoy, L.A. Unified School District
David Quinn, Private Consultant
Bonnie Russell, Riverside Cnty Office of Educ
Wayne Sailor, San Francisco State University
Geralaine Slaght, Cal State Univ, San Bernadino
Edward Smith, L.A. Unified School District
Kay Turley, North Orange County ROP
Jim White, Dept of Developmental Services

Chapter 1
INTRODUCTION

It is difficult to know how successful programs are until you find out what happens to students after they leave your school. Do students get jobs with decent pay and future opportunities? Do they continue their training elsewhere? Do your former students live as independent adults? Are they satisfied with their lives and the educational preparation they received? This handbook will provide instructions for conducting follow-up studies to answer these and other questions about the transition from high school to adult life.

Following the steps outlined in this handbook will insure that you will produce accurate and representative follow-up data.

What are Follow-up Studies?

Follow-up studies will allow you to track down your former students to find out what has happened to them since their senior year. For example, you might want to compare the percentage of special education students who have jobs, say two years after they leave school, to the percentage of general education students who have jobs after the same amount of time. Or you might want to compare the wages of the two groups. The type of follow-up study described in this handbook is called a *panel study*. It will allow you to assess students in their final year of high school. Then you will contact them four more times over a two year period for further assessment. With the information that you get from these interviews, you can compare special education and general education students over a two year period.

The information you get can be used to develop more effective programs to help students achieve their goals after high school. You can also use the data to help special education students find productive employment and to identify educational programs that enhance the quality of your students' lives.

The Role of this Handbook

The handbook that you are reading will show you how to conduct research that will allow you to better understand the transition of high school students into adult life. First you will learn some of the basic elements of good research practice; then you can follow the specific steps outlined to collect data, enter it into a computer, and analyze the results. The development of this handbook has been made possible by funding from the California State Department of Education, Education Transition Center. The handbook is designed to specifically help high school teachers and staff design, implement, and collect three types of data on two categories of students.

The three types of data collection are:

- **Employment Activities** (*e.g.*, job search, employment status, and income)
- **Quality of life** (*e.g.*, the extent of self-management, satisfaction with life)
- **Goal Achievement** (*e.g.*, the extent to which goals established in the early phase of transition have been realized).

The two categories of students are:

- **Special Education Students** (students with special needs who face Significant barriers in the completion of high school)
- **General Education Students** (students who do not fit the above category)

In order to understand how special education students are doing after they graduate, they will be compared to general education students. It is necessary to make this comparison because there are no absolute measures of success. If we could say, for example, that transition success in employment requires that students have jobs (or be in college) at least one year after graduation, then it would not be necessary to make comparisons between special and general education students. Unfortunately, no such absolute measures are generally accepted.

The data that you collect will also be useful for examining how school programs affect the transition process. This data will be helpful in indicating where resources might be placed to better assist students with exceptional needs.

The Benefits of Using this Handbook

An important concept emphasized throughout this handbook is that poor quality data is less than useful. When it leads you to make the wrong choices, you may be better off following your own instincts or "flipping a coin." Let's say that you want to know if your new class, Job Search 101, is really helping students get jobs. You think that it is because you have observed the class, and the instructors seem to be going over some good practices that appear to be well received by the students. However, you would like to know if the students who take this class think that it has helped them find jobs after they graduate. It seems like a good idea to survey former students, but resources are tight. So you take a survey of the first 50 students that you are able to reach by phone. None of them have found jobs, and they all think that the course was a waste of time. Should you cancel the class? Certainly not on the basis of this information! Maybe you found these students easily because they were unemployed. The 200 who you weren't able to contact may have been either working at new jobs or looking for employment!

If you follow the steps outlined in this handbook, you will avoid such mistakes. Keep in mind that anyone can do surveys. But understanding basic research principles is essential to get useful results.

Outline of the Handbook

This handbook provides you with all the essential resources for conducting good research about transition. This chapter, **Chapter 1**, should give you some idea of what the handbook is all about and why you might want to consider using it as the basis for analyzing the transition processes.

Before you use up forests of trees printing out information that may be of no or little use, read **Chapter 2** to learn the basic laws of polling. If you spend some time on this short but powerful chapter, you will have a good understanding of the important ghuidelines for survey research. It will give you a readable overview of what constitutes good survey practice, what to avoid doing, and what to spend your efforts on so that you have an opportunity to use the school's limited resources wisely.

Chapter 3 is a "cookbook" of procedures to follow and steps to take in order to get good data over the relevant two-year period. It may get a bit technical at times, but is designed to provide a procedural and mental checklist of steps necessary to establish a management information system and a data-collection system for those students chosen to be studied over time. It is limiting in that is is designed to provide you with few choices, rather than confuse you with many.

Chapter 4 provides a specific set of recommendations about the computerization of the data collection, such as approches for storing and analyzing your data.

In the **Appendices** you will find the in-class questionnaires, telephone interview forms, face-to-face interview forms, consent agreements, and other materials necessary to conduct research about two different groups of students over two years of transition. For efficiency in data entry, these instruments are already coded for the computer.

The procedures provided in the last two chapters are organized into seven basic stages of development:

The Data collection procedures provided in the last two chapters are organized into seven basic stages of development:

(I) Determine Scope of Data Collection

(II) Identify Data Sources and Institutional Liaisons

(III) Assess Resource Needs and Finalize Goals

(IV) Prepare for Data Collection and Collect Baseline Data

(V) Collect Follow-up Data

(VI) Prepare and Code Follow-up Data for Entry to a Computer

(VII) Use Computer Software to Store and Analyze Data

Each of these seven stages is broken into a sequence of tasks (**See Exhibit 1.1**). In broad overview, these stages entail planning, data collection, and data processing. All of the stages and activities are designed to provide your high school with high quality data at the lowest feasible cost. You need to pay close attention to these chapters and references.

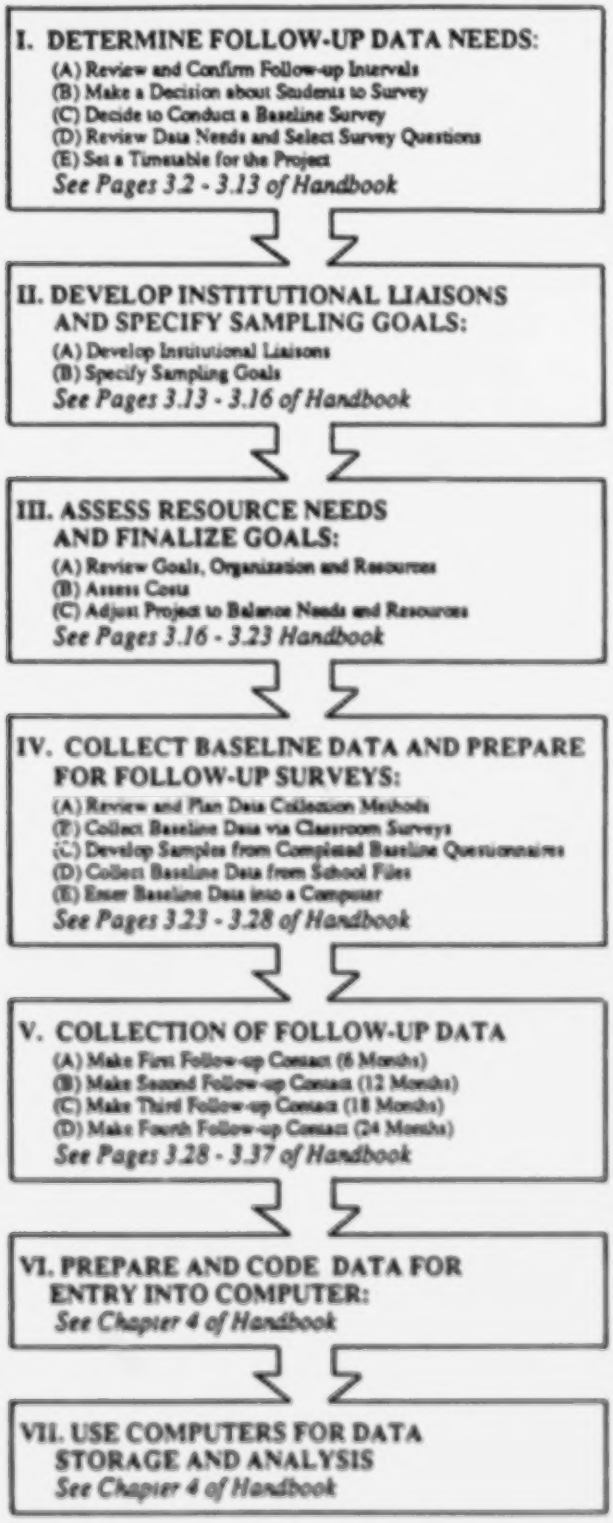
You will be given the opportunity to modify research to fit your own local circumstances. For example, you can decide if you want to take a sample (*i.e.*, interview some of the group) or a census (*i.e.*, interview everyone in the group). Some of these choices are presented as a means of reducing costs when resources are limited. You should review this entire handbook carefully, then use some of cost assessment forms (**See Exhibit 3.5**) in **Chapter 3** to specify the scope of the project and the resources needed to complete it. Spend some time thinking about problems and procedures before launching into the project. This way the handbook becomes a useful guide to assist rather than a hindrance to drag you down!

QUESTIONS?

We would like to hear from users about how well this handbook has worked for those who have used it. If you have any questions or suggestions about how to improve this handbook, or if you need technical assistance with its use, please contact us at:

EDUCATION TRANSITION CENTER
State Department of Education
650 University Avenue, Suite 200
Sacramento, California 95825
(916) 921-5700

Exhibit 1.1
OVERVIEW OF FOLLOW-UP SURVEY PROCEDURES


I. DETERMINE FOLLOW-UP DATA NEEDS:
(A) Review and Confirm Follow-up Intervals
(B) Make a Decision about Students to Survey
(C) Decide to Conduct a Baseline Survey
(D) Review Data Needs and Select Survey Questions
(E) Set a Timetable for the Project
See Pages 3.2 - 3.13 of Handbook
II. DEVELOP INSTITUTIONAL LIAISONS AND SPECIFY SAMPLING GOALS:
(A) Develop Institutional Liaisons
(B) Specify Sampling Goals
See Pages 3.13 - 3.16 of Handbook
III. ASSESS RESOURCE NEEDS AND FINALIZE GOALS:
(A) Review Goals, Organization and Resources
(B) Assess Costs
(C) Adjust Project to Balance Needs and Resources
See Pages 3.16 - 3.23 Handbook
IV. COLLECT BASELINE DATA AND PREPARE FOR FOLLOW-UP SURVEYS:
(A) Review and Plan Data Collection Methods
(B) Collect Baseline Data via Classroom Surveys
(C) Develop Samples from Completed Baseline Questionnaires
(D) Collect Baseline Data from School Files
(E) Enter Baseline Data into a Computer
See Pages 3.23 - 3.28 of Handbook
V. COLLECTION OF FOLLOW-UP DATA
(A) Make First Follow-up Contact (6 Months)
(B) Make Second Follow-up Contact (12 Months)
(C) Make Third Follow-up Contact (18 Months)
(D) Make Fourth Follow-up Contact (24 Months)
See Pages 3.28 - 3.37 of Handbook
VI. PREPARE AND CODE DATA FOR ENTRY INTO COMPUTER:
See Chapter 4 of Handbook
VII. USE COMPUTERS FOR DATA STORAGE AND ANALYSIS
See Chapter 4 of Handbook

Chapter 2
BACKGROUND ON FOLLOW-UP SURVEY RESEARCH

Picture yourself on a plane bound for Hawaii. The stewardess gives you a survey form that you begin to fill out. One question concerns the fares. The airlines would like to know if you would have made this trip without the discount ticket. You reflect on the $199 round trip ticket and respond:

[ ] Gosh, yes! I would have paid $699 rather than miss my vacation to Hawaii!

[ ] Never! I would vacation in Siberia rather than pay one more cent! (The truth being that you would pay the $699, but want the airlines to keep their rates low.)

Give yourself an "A" if you selected the second response. That's a vote for continuing discount airline tickets. However, the person who constructed the survey doesn't deserve a C! Managers who accept this information will be worse off than if they use their own intuitive judgment about the willingness of customers to pay higher fares. The airlines, at the minimum, will lose the cost of the time to design and conduct the survey. And managers who are foolish enough to believe the results will misjudge consumer demand. Bad information creates bad decisions and policies.

Why Read Further?

For a number of sobering reasons, the findings of an alarming proportion of survey research are misleading and all too frequently downright wrong. For the most part, these problems do not stem from unfathomable statistical intricacies or research methods. They result from a failure to observe a number of basic techniques that everyone doing survey research can and should understand. This chapter provides a quick, and we hope, easy to read overview of essential survey research techniques. Rather than being stone serious about this topic, we've succumbed to a bit of levity, focusing in this chapter on seven cardinal "laws of polling." However, the spirited tone of this chapter should not suggest that its content is not important. This chapter summarizes key principles that even experienced research professionals tend to forget from time to time. Regardless of your background and training, we urge you to review this chapter before beginning your follow-up study.

There's No Free Lunch!

There ain't no such thing as a free lunch! All too frequently, researchers confront arguments that it is a lot cheaper to use any data that are available or to do one's own "quick and dirty" survey. But keep in mind that bad, inaccurate, and biased data can easily lead you to make decisions that cause the misallocation of valuable educational resources. Garbage in, Garbage out!

Consider the fate of the *Literary Digest*. During the 1936 Presidential campaign, the *Literary Digest* sampled millions of telephone subscribers and auto owners. It picked Republican Al Landon to be the winner by 10 percent. Franklin Roosevelt won by 10 percent. This bad forecast destroyed the magazine, which went out of business two years later.

Interviewing only auto owners and telephone subscribers during the depression was a fatal error. The *Digest* failed to consider this bias in its "sample frame." They also failed to reduce their 85 percent refusal rate in a mail sample. The *Literary Digest* thought that all they needed was a lot of responses to get accurate and reliable results. In reality, only people who were wealthy enough to own a car and pay for return postage responded. This error caused them public humiliation and ultimate business failure!

During the same 1936 Presidential campaign a relatively unknown polling group focused their resources on getting a high quality set of data. Although they used a much smaller sample, 1,500 respondents in a quota sample, their forecast was correct. It was the beginning of a success story for the Gallup Poll.

THE FIRST LAW OF POLLING

To avoid the *Digest's* fatal error, it is critically important to develop unyielding reverence for the **First Law of Polling:**

IT IS BETTER TO SURVEY A SMALL SAMPLE THAT IS RANDOMLY SELECTED TO BE REPRESENTATIVE THAN A LARGE NUMBER THAT IS NOT REPRESENTATIVE.

It will give you better information than thousands of poorly collected responses because:

- More care can be given to insuring that the sample of respondents is representative;
- You can make certain that all persons to be interviewed are interviewed;
- You can insure that responses are collected accurately;

- The process is less expensive.

Sampling is not always appropriate, but getting representative data is!

PROBABILITY SAMPLING VERSES JUDGMENT SAMPLING

The trick to getting representative data hinges upon the difference between ***probability sampling*** and ***judgment sampling***.

Probability samples use random selection procedures; everyone in the target group has an equal chance of being selected for an interview. To illustrate, let's assume that your target group is all general education students who graduate from your high school. If you decide to save toll charges by interviewing only those who are in the local call area, your sample will not be random. Maybe those who moved out of the area got better jobs because they were willing to go to the jobs while those who stayed at home found no work. The results of your interviews would lead you to conclude erroneously that their high school education did not help them get jobs. However, if you assign each completer a number and draw a few of the numbers out of a "hat" (or a computer), you will have a random sample.

Judgment samples do not use random methods. Therefore, it is not possible to state that the chances are equal that every person in the population to be studied will have a chance to be in the sample. This type of sampling is generally biased, consciously or unconsciously, by the survey researcher. A researcher, for example, may select only those who are easy to locate and interview. This is a convenience sampling procedure.

The major types of judgment samples are: (1) purposive samples, when only special persons are sampled; (2) quota samples when only those who fit a set of characteristics are sampled; and, (3) volunteer samples in which only those who volunteer are sampled. Even cases where respondents are selected to produce a balance of characteristics to mirror the population (*i.e.*, set percentages by age and sex) may produce non-representative data within each category if they are not chosen randomly.

The major problem with using judgment samples is that the data will not represent the population of interest. Serious errors in data analysis will result, for example, from a purposive survey in which only those who have obtained work are interviewed.

Another major source of error is "chunk sampling." This technique assigns interviewers a certain quota of respondent types such as ten women and five blacks to interview. Leaving the responsibility of selection of sample elements to the interviewers is a very poor professional practice.

Finally, letting respondents volunteer themselves to respond, as is often done in readership surveys for magazines, will increase the likelihood of responses from those persons who have a particular "axe to grind" concerning the subject of the survey.

All these types of judgmental procedures lead directly to biased samples. Avoid these mistakes like the plague!

If you use random probability selection, your sample will not be biased, from either interviewer judgment or respondent self-selection.

ADVANTAGES OF PROBABILITY SAMPLING

Probability sampling produces data that really represent the group you are studying. It also reduces costs and improves the accuracy of respondent answers.

(1) Reduction of Selection Bias

Probability sampling is the best way to collect data from large groups of students. It yields better, more reliable information by reducing the selection bias of judgment samples. Selection bias causes certain types of individuals to be selected for interviewing. Voluntary mail surveys, for example, may only get responses from thirty percent of the group of interest. Maybe these respondents take time to respond because they have not found work. The conclusion might be that school programs are not helping people get jobs because none of those who graduated have found work. In fact, it might be the surveying that was unsuccessful because those who did not take time to be interviewed were those who found jobs. The data produced from such a survey design will not be truly representative of the entire group of interest.

(2) Reduced Costs and Time

Your costs will be reduced if you use equal probability sampling rather than surveying an entire population. Since a sample is a smaller number of respondents, the total cost of the data collection activity is reduced. In general, the optimal sample size is 1,500 respondents. Obviously, interviewing 1,500 persons compared to interviewing 10,000 persons will be lower in total cost. Another important factor is greater speed and access to the data. It will take much less time to interview 1,500 respondents than 10,000! This time factor can improve your data quality. For example, if it takes six months to conduct a follow-up survey, it is very likely that those who responded early may have found jobs by the time the last respondents answered the survey.

(3) Improved Data Quality

If you sample you will get much higher quality data than you will from a census of a whole group. You can ask more in-depth questions and your results will be more accurate. Higher quality personnel selection, training and supervision make these results possible.

If you need to survey large numbers, you should use probability samples to collect representative data. If you do not plan to take a random sample or use representative data, you can skip the rest of this chapter. But if you do, be prepared to face the fate of the *Literary Digest*!

How Wrong Can You Be?

Truth is an illusive goal. Scientists, whether they study physics or society, have long known that when we seek to measure reality, we never really get an absolute figure. Whether we measure atomic particles or unemployment rates, there is always some give and take in our numbers.

SAMPLE SIZE DETERMINES RELIABILITY

The amount of "shake" in our numbers is reduced as the number of observations increases. Imagine that you are sampling all the coin flippings in the universe. For this infinite number, you know that the average will be 50/50 for heads and tails. But this average will vary with the number of flips you make. If you take a "sample" of ten flips, the results could easily be seven heads and three tails. But if your coin flipping sample has 100 tosses, the chances are much greater that the results will be closer to the 50/50 distribution for the universe.

Thus the **Second Law of Polling**:

THE AMOUNT THAT YOUR SURVEY RESULTS DIFFER FROM THE POPULATION YOU ARE STUDYING WILL DECLINE AS YOUR SAMPLE SIZE INCREASES.

It is true that after a given point there are diminishing returns to increasing your sample size. But first, we need to look at how you can measure the "shake" in your data.

RECOGNIZE THE LIMITS OF YOUR DATA

Data from survey samples will always have some error. Unless you sample everyone in your target population and collect data from everyone in the sample, survey data will vary somewhat from the actual population. This is called ***sampling error***.

Fortunately, we have tools to know the level of sampling error. Statistical techniques can tell us the range of error that our survey data is likely to have and the probability that this range of error is true. In statistical jargon, the range of error is known as ***precision*** and the probability that this range of error will not be exceeded is known as ***confidence***. Examples can illustrate these concepts.

Suppose 50,000 people have completed high school in your district during the last two years and you randomly select 1,000 to be interviewed. Results indicate that their average annual income is $15,000. How close is this estimate to the average income of the entire group of 50,000? Precision refers to how close the estimate is to the entire group's average income. If the estimate is made with an error margin of plus or minus 5

percent, it is more precise than if the estimate is made with plus or minus 10 percent error margin. Greater precision requires either reductions in confidence or increases in sample size.

Confidence indicates the likelihood that your estimate of precision is correct. Professional survey research commonly uses a 95 percent confidence level as the standard. This means that 95 out of 100 times the sample you are working with is representative of the population of interest. In other words, the chances are 95 out of 100 that survey responses mirror the population you are studying within a given range of precision.

It is important to note that you can make trade offs between precision and confidence levels. Given a sample size, higher standards of confidence will reduce the probability that your data exists within the range of precision you have specified. **Exhibit 2.1** presents the precision estimate for seven sample sizes and two levels of confidence. Notice how the precision increases as the confidence level decreases. Notice also how the precision ranges get smaller as the sample sizes increase within each of the confidence levels. **Exhibit 2.1** also illustrates how sample size affects precision and confidence.

Say that there are 50,000 Californians who have completed a high school class in retail marketing. You take a random sample of 1,000. You manage to get a response out of every one of them, and 50 percent agree that the course was no good because the methods they were trained in were not effective. According to **Exhibit 2.1**, the chances are 95 out of 100 that between 46.9 and 53.1 percent of all 50,000 of the completers would agree that the course was no good because the methods were ineffective. However, if we wanted 99 percent confidence, we would have to say that between 45.9 and 54.1 percent agreed that the course was no good.

Exhibit 2.1

TABLE OF ERRORS DUE TO RANDOM SAMPLING AT TWO CONFIDENCE LEVELS AND SEVEN SAMPLE SIZES

Sample Size:	Percent Plus or Minus at 95 Percent Confidence:	Percent Plus or Minus at 99 Percent Confidence:
10,000	1.0%	.3%
5,000	1.4%	1.8%
2,500	1.6%	2.6%
1,000	3.1%	4.1%
500	4.4%	5.8%
250	6.2%	8.2%
100	9.8%	12.9%

THERE ARE DIMINISHING RETURNS TO INCREASING SAMPLE SIZE

While it's always good to have large samples, there are points where the costs of added data collection do not result in significant reductions of sampling error.

To save money and time, it is important to know the **Third Law of Polling**:

AFTER A CERTAIN POINT, THE REDUCTION OF ERROR ACHIEVED BY INCREASING THE SIZE OF RANDOM SAMPLES IS NOT WORTH THE ADDED COSTS FOR DATA COLLECTION.

For example, with a sample of 250, your results can be expected to vary somewhere between plus or minus 6.2 percentage points from the total population. For a 1,000 respondent sample, this range of error is reduced to plus or minus 3.1 percentage points, and for a sample of 5,000 it is plus or minus 1.4 percentage points (**See Exhibit 2.1**). For those of you with an eye to confidence levels, these figures were calculated for 95 percent confidence.

Most survey professionals set their sample sizes between 500 and 2,000. The upper numbers of this range are generally chosen to allow analysis of groups within the total sample (*i.e.*, views of women and minority respondents) rather than to decrease the sampling error for the total sample.

The wonderful thing about probability sampling is that these guidelines hold true regardless of the size of your population of interest.

Don't Let 'Em Get Away

This brings us to one of the most important principles of survey research. It is extremely important to follow the **Fourth Law of Polling**:

IF A PERSON IS SELECTED TO BE INTERVIEWED, DON'T GIVE UP UNTIL YOU HAVE THAT INTERVIEW!

The primary goal of probability sampling is to collect a sample which is representative of the population of interest. The key rules for such sampling are that every member of the population of interest must have an equal chance of being selected for the sample, and that the sample elements have the least chance of selecting themselves out of the sample (*i.e.*, not responding or refusing to respond). Thus, every effort should be made to survey all selected persons in the sample to avoid self-selection bias. In this manner, the sample is thought to reflect only the errors due to chance and

not those due to the selection judgments of data collectors or the self-selection of respondents.

RESPONSE RATES ARE CRITICAL!

The ***response rate*** is found by dividing the the number of completed interviews by the number of expected interviews. For example, if you drew up a list of 100 people to be interviewed and only managed to interview 60, your response rate would be 60 percent. There are various reasons for low response rates, some of which can be corrected.

You may not be able to locate a potential respondent because she has left town with no forwarding address. Ask her family or friends for her phone number or address. If she is a special education student who has signed a consent form, you might be able to get a local service agency, such as the Department of Rehabilitation to help you locate the person to be interviewed. However, there are some whom you may never locate.

In some cases, a low response rate is due to lazy interview practices. For example, your interviewers may not call back after being told that the person on the interview list isn't home yet. This can be corrected by training interviewers to be persistent.

A low response rate may also be due to the failure of respondents to answer all of the questions. Maybe the potential respondent takes one look at your long questionnaire and throws it in the round file. Or maybe the recipient of the interview reads several questions that are not applicable before throwing it away. Many questions may go unanswered, particularly in a mail questionnaire, because the potential respondent doesn't understand the questions or is not interested in answering them. Design and presentation of questions can reduce this problem. Use of phone or person-to-person data collection rather than mail survey can also greatly reduce this problem.

The "hard-core" refuser also contributes to a low response rate. Maybe some of the parents of your special education students do not want to take time from their busy schedules to help you interview their children. They may not understand English very well, or they may not understand why you are doing the survey. Well texted questions, designed for the target group, and asked by interviewers trained to probe for answers, can greatly increase respondent cooperation and response rates to individual questions on your questionnaires.

DISTORTIONS FROM LOW RESPONSE RATES CAN BE MASSIVE!

Why worry about low response rates? In order to understand the detrimental impact of a low response rate, consider **Exhibit 2.2.** Say you took a sample of 1,000 graduates and you only had a response rate of 40 percent. Fifty percent of the sample said that their high school education had improved the quality of their lives, and 50 percent said that it was not beneficial. **Exhibit 2-3** indicates that the error width for a response rate of 60 percent is 44.6 percent points. Take half of 44.4 percent points and you have 22.3 percent points. Add 22.3 percent to the 50 percent who said that their high school education did improve the quality of their lives. This yields an upper estimate of 72.3 percent who state that they found high school beneficial, but it also yields a lower

estimate of 27.7 percent who state that it is beneficial. This low response rate means that your best estimate of the views of the entire population from which you took your sample is that between 27.7 percent and 72.3 percent feel that high school improves the quality of their lives. But if you had a 100 percent response rate, you could conclude that between 46.75 percent and 53.25 percent think that a high school education is beneficial. This latter estimate is more precise than the former.

Exhibit 2.2

INCREASES IN ERROR MARGIN WIDTHS AT DIFFERING NON-RESPONSE RATES

(Assumptions: Number=1000; 50% Respond "Yes" and 50% Respond "No")

Response Rates (Percent of Total Sample):	Total Standard Widths of Error (Percent Variation):
100	6.5%
90	16.0%
80	25.6%
70	35.1%
60	44.6%
50	54.1%

NOTE: This table is adapted from Willim G. Cochran, ***Sampling Techniques***, 3rd. Edition (New York: John Wiley & Sons), 1977 page 364. See also Carol H. Fuller, "Weighting to Adjust for Survey Nonresponse," ***Public Opinion Quarterly***, Volume 38, 1974, Pages 239-246.

Why does a low response rate turn your results into garbage? Because almost all the people that you did not contact may have been very positive about their high school education, but their lives were too busy for them to find time to answer your questionnaire. The people who are dissatisfied could be over-represented in your survey. We can't overstate the importance of getting high response rates!

Representative of What?

Even with the best of sampling techniques and high response rates, your data will be worthless if it is not collected accurately and objectively.

This brings us to the **Fifth Law of Polling**:

MAKE SURE THAT DATA ARE COLLECTED AND PROCESSED CONSISTENTLY AND OBJECTIVELY!

Survey questions must be presented neutrally, so respondents provide accurate information without the slightest sense that the interviewer is pressuring them to answer one way or another. Imagine that a local survey firm called you one night to get your views on movies playing in your town. After a brief introduction, the interviewer lists the first movie (*Jesse James Meets Frankenstein*) and asks, "You liked that movie didn't you?" Being of sound mind and firm conviction, you would probably respond, "It stunk" (or more likely, "I didn't see it"). However, there are many people who go out of their way to be agreeable, even if it means obscuring their real feelings. With a question like this, such people might well respond, "Oh yeah, it was great." From such folks, the interviewer would get responses to match his or her preconceptions. But it wouldn't be good data!

Along similar lines, if interviewers get too enthusiastic, respondents may be led to make certain responses to please the caller. For example, a chatty interviewer might agree with the former student that the high school education was beneficial. This might have the effect of encouraging the respondent to say only positive things about your high school program. Or, your interviewer may get into a hurry to finish. A lot of *don't know* answers may show up because interviewers fail to take the time to probe. These and other types of shortcomings, on the part of interviewers can spoil your survey results.

Poorly structured response options can also contribute to bad data. Questions must provide balanced options for respondents. For example, how would you answer the question, "How much do you admire Adolf Hitler?" if you were given the following response options:

[ ] A Great Deal
[ ] Moderately

Chances are that you couldn't find a response that accurately represents your feelings. Surveys that force respondents into an incomplete array of response patterns are prime candidates for the waste basket.

Sloppy recording of answers is also a curse upon survey research. The best samples, the best questions, and the best interviewing techniques will all be wasted if responses are marked inaccurately.

The data you collect must accurately reflect your respondents. ***Accuracy*** refers to the closeness of the sample to the truth. Keep in mind that accuracy is determined by many factors. As we've just seen, accuracy can be destroyed by interviewer biases and poor question design. It can also be caused by a lack of insight about respondents. Consider the earlier questionnaire distributed by the airline on your way to Hawaii. Even if it were determined that the chances were 99 out of 100 that the entire population would agree to never fly without discount fares, the truth of the matter is that they were probably lying! Confidence and precision are meaningless without accuracy.

Let's look at some other ways that accuracy is lost. Maybe you interview special education graduates to find out the parts of their high school education that have been most useful. Let's say that you interview 500 people with ***open-ended questions***. In other words, the people interviewed can tell you whatever is on their minds with no restriction in what they say or how long it takes them. Although you may think that this approach will get you the most information, it will be very difficult to summarize and to organize it into conclusions. Getting a good understanding of what people mean and grouping their answers so that a summary can be presented may be impossible, or at least

very costly, with this type of data. ***Closed-end questions***, in which the respondent has only a specific set of choices, can improve the quality of the data collected.

For example, consider the open-ended question:

"Do you think your high school instructor should be rehired?"

This question could get you a bewildering array of responses (*i.e.*, yes, no, maybe, yes if he quits smoking, yes if he learns to communicate better). On the other hand, responses coded yes or no will eliminate your problems of summarizing respondents' answers. Of course, you will sacrifice detail and flexibility for the clarity and simplicity of a bottom line yes or no response. However, this lack of detail and complexity is commonly desired when you summarize and analyze your data.

Finally, careless coding and entry of data can really foul up your results. Be sure to see that the proper coding instructions are carried out during data entry.

Two Ways to Skin a Cat

You can either collect ***primary data*** or use ***secondary data***, such as Individualized Educational Plans (**IEP's**). Primary data is data that you are collecting directly from the source (*e.g.*, viewpoints from individuals on counts of cars passing an intersection). Secondary data is data that already exists (*e.g.*, existing survey data on viewpoints, or county records on the number of cars passing an intersection). If you decide to use secondary data, be sure that it measures up to the same standards that you would follow to conduct good primary research.

Unfortunately, a lot of "good" secondary data either is not pertinent to the precise need you may have, or the effort required to adopt it to your needs is as costly as collecting new data.

EXISTING DATA CAN BE A TROJAN HORSE

Before you use secondary data, you should ask certain questions about the way it was collected and summarized. Otherwise your "free lunch" may come from the "doggy bag."

(1) Is it Timely?

Say you want to know whether or not special education students who are graduating seniors are employed. You check the records and find that most files have not been updated in the past two years. If you use this information, you will miss some students who do work, and you will probably list some as working who do not have jobs.

(2) Does it Ask the Right Questions?

If you plan to evaluate your respondents' quality of life, you will need measures in your baseline data as well as in your later surveys. IEP files do not contain these measures because they do not ask the right questions. If you insist on using IEP files alone to conduct your baseline survey, the data will be irrelevant. It is critical to determine if the type of data available from secondary sources is pertinent.

(3) Does it Provide the Right Response Codes?

Even if the question is appropriate, the response code may be very difficult to use. Maybe the only response codes for an employment question are "employed" or "unemployed"; this is not acceptable if you would like to know whether students are working "full" or "part-time".

(4) Does it Survey the Right People?

It does not make a lot of sense to analyze data about people who are not registered to vote if your purpose is to predict the outcome of an election. Be sure that your sample matches the population you wish to study.

(5) Were Enough People Sampled to Allow Sub-Sample Analysis?

Let's say that you want to use existing data to breakdown the employment rate for your high school graduates by type of disability. This data provides information on two students who are blind where there were ten blind students in your school. One is working and the other is not. Don't conclude that the unemployment rate among the blind is 50 percent. Conclusions about sub-population on the basis of such numbers are more likely than not to be incorrect.

(6) Is there Sufficient Documentation of the Data Files?

Many data files are on computers. Before they can be used, them, it is necessary to inspect their "documentation" for coding, variable names and other information. If the agency in charge of the data tells you that the tape is well documented, be cautious. Claims about documentation generally belong in the same category as "the" check is in the mail." Seeing is believing!

USE EXISTING DATA WHEN IT MEETS YOUR NEEDS

Conclusion about secondary data: If you find a secondary computer data file that meets all of the above requirements, shout "Eureka!" You've saved your school and

yourself considerable time and money. But be sure that this "gift from the Gods" truly meets your needs.

These ideas are summarized in the **Sixth Law of Polling**:

MAKE SURE THE EXISTING DATA IS TIMELY, RELEVANT, ACCURATE, REPRESENTATIVE OF THE RIGHT GROUPS, AND SUFFICIENTLY DOCUMENTED BEFORE YOU USE IT!

Use secondary data wherever you can. But be careful! Although the initial cost of using primary data is higher, the chances of getting inadequate and untimely data are high.

Straight from the Horse's Mouth

Even if you collect your own data, there are a number of problems that may cause your numbers to be wrong. By being aware of these problems you can prevent or reduce the likelihood that they will cause errors in your data.

LOOK BEFORE YOU LEAP

The principles of good survey research are straight forward, but you must follow the **Seventh Law of Polling** to apply them successfully:

IF YOU COLLECT YOUR OWN DATA, ALWAYS PLAN YOUR ACTIVITIES CAREFULLY AND WAY IN ADVANCE OF THE START OF DATA COLLECTION!

THE SEVEN STAGES FOR USING THIS HANDBOOK

In broad brush strokes, survey research progresses through planning, data collection, data processing, and analysis. This handbook has organized the procedures of collecting data for your baseline survey and your four post-graduation contacts into seven stages. A quick tour of these stages will give you an overview of the type of survey research known as a **panel follow-up study**. It is called a panel follow-up study because it tracks the same people over time.

(1) Determine the Scope of Your Data Collection

You will need to determine whether you are going to take a census (*i.e.*, survey everyone in a group) or take a sample (*i.e.*, survey some in a group.) You will need to make this decision for both special education students and general education students. After you have made these decisions, draw up a list of students (sampling frame) whom you plan to survey. You will also need to decide which organizations (*e.g.*, Department of Rehabilitation, Lions, etc.) will be helpful in your research efforts.

(2) Identify Institutional Liaisons and Specify Sampling Goals

Next you should identify and assess the quality of existing data and potential liaisons within your school and your community. If existing data meets your needs, use it. But evaluate it rigorously. Make sure that any records you would like to use will be available to whomever you assign to collect the information. Establish the sample sizes you intend to use for the follow-up surveys.

(3) Assess Resource Needs and Finalize Goals

Ideal research goals are frequently balanced against resource constraints. You need to estimate the cost of conducting your survey and determine if you can afford it. If you have to scale back, be sure the end result continues to meet your minimum needs. After you have balanced resources and goals, you must finalize your procedures.

(4) Collect Baseline Data and Prepare for the Follow-up Survey

After you have checked the economic viability of your project and finalized your plans, you must undertake the practical preparations required to conduct a survey.

After you have your sampling frame, you need to collect your baseline data, (*e.g.*, age, sex, family income, quality of life indicators). Although it would be cheaper to use IEP forms, you will probably want to collect this data in a classroom survey. You can get your students to sign consent agreements that give you the right to use the data and to access other records when you administer the classroom survey. This will also be an opportunity for you to "sell" the project to your students so that you can increase the response rate when you survey them after they graduate. After you collect the classroom survey questionnaires, you should draw a sample from these questionnaires for your follow-up survey. You should also collect data from school files on the sample you've selected.

Finally, you need to organize your follow-up procedures for the four post-graduation contacts. Find out from your teachers which special education students will require interpreters or face-to-face interviews. Then arrange survey time, space and phone. You will need to modify your telephone interview schedule and duplicate the various forms that you will need for the surveys.

(5) Collect Your Follow-up Data

Data collection for this follow-up survey requires that you make four post-graduation contacts. The first contact, six months after graduation, is designed to help you keep up with the addresses and phone numbers of your former students, and collect basic information on their employment status. The second contact, a telephone interview one year after graduation, will provide you with information about the students' employment activities, quality of life, and goal achievements. The third contact, a mail-out survey eighteen months after graduation, is like the first contact, designed to help you keep track of students. The fourth contact, a telephone survey two years after graduation, will, like the second contact, give you substantive information about your former students.

It is important that you carefully monitor the data collection process. You should check your interviewers while they are collecting the data, and make certain that they are following the procedures as you trained them to do. Also make sure that they are skipping the right questions and are marking the appropriate response codes.

(6) Prepare and Code Data for Entry Into a Computer

After your follow-up data has been collected, it must be reviewed and prepared for entry into a computer. This may be a very simple or complex process. Sometimes it is necessary to code responses into a form that is more suitable for entry. Guidelines for this process are provided in **Chapter 4** of this handbook.

(7) Use Computer for Data Storage and Analysis

Ultimately, you will enter the data into a computer file and conduct analysis to find the answers to your questions. This is the final culmination of your efforts. This stage requires that you decide which numbers are important, summarize the lessons they teach us, and prepare reports. It will require considerable effort to get to this point. It is important that you get a full return on these efforts. *See* **Chapter 4** for discussion of these activities.

To the Field!

This handbook has been designed to help you collect baseline data during the students' senior year and make four follow-up contacts after they graduate. You will be surveying two groups, special education and general education students. You will collect information about the students' employment activities, quality of life, and goal achievement in the baseline survey and in two of the post- graduation contacts. If you follow the guidelines in this handbook, you will find out what happens to your graduates after they leave school and you can compare the special education and general education students' progress. Regardless of the type of research that you are doing, it is important to keep in mind that there are always basic standards of objectivity, accuracy, currency,

representativeness and relevance. It is important that you keep these criteria in mind and always obey the Seven Laws of Polling. Remember the *Literary Digest*!

Chapter 3
COLLECTING FOLLOW-UP DATA

The proof is in the pudding! An important part of knowing how successful your programs have been comes from finding out what happens to your students after they leave school. This chapter provides steps for collecting this type of information. An ongoing theme of this handbook and chapter is that anyone can do surveys, but the information will be worse than useless unless certain standards are met. The procedures provided in this chapter have been designed to insure that your follow-up data is useful, not useless.

What does this Follow-up Handbook Survey Do?

The collection of good follow-up data will require you to complete certain critical tasks in proper sequence. You should carefully follow the seven stages in the order specified in the last two chapters of this handbook. These seven basic stages are:

(I) Determine the Scope of Your Data Collection

(II) Identify Institutional Liaisons and Specify Sampling Goals

(III) Assess Resource Needs and Finalize Your Goals

(IV) Collect Baseline Data and Prepare for Follow-up Survey

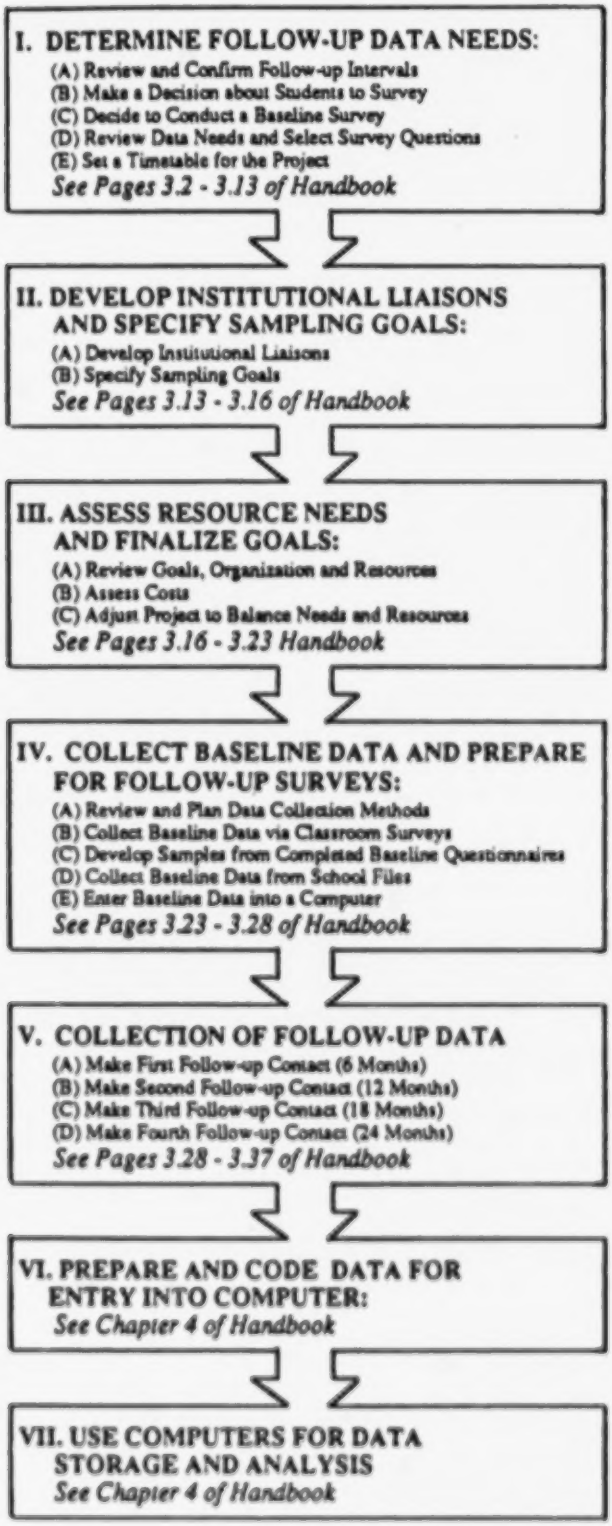
(V) Collect Follow-up Data

(VI) Prepare and Code Data for Entry into Computer

(VII) Use Computers for Data Storage and Analysis

Each of these seven stages is broken down into a sequence of tasks (**See Exhibit 3.1**). They guide and assist you in identifying target groups to study, collecting data over time, managing information about students who have left the system, and finally, collecting data from students two years after they have left high school.

Exhibit 3.1
OVERVIEW OF FOLLOW-UP SURVEY PROCEDURES


I. DETERMINE FOLLOW-UP DATA NEEDS:
(A) Review and Confirm Follow-up Intervals
(B) Make a Decision about Students to Survey
(C) Decide to Conduct a Baseline Survey
(D) Review Data Needs and Select Survey Questions
(E) Set a Timetable for the Project
See Pages 3.2 - 3.13 of Handbook
II. DEVELOP INSTITUTIONAL LIAISONS AND SPECIFY SAMPLING GOALS:
(A) Develop Institutional Liaisons
(B) Specify Sampling Goals
See Pages 3.13 - 3.16 of Handbook
III. ASSESS RESOURCE NEEDS AND FINALIZE GOALS:
(A) Review Goals, Organization and Resources
(B) Assess Costs
(C) Adjust Project to Balance Needs and Resources
See Pages 3.16 - 3.23 Handbook
IV. COLLECT BASELINE DATA AND PREPARE FOR FOLLOW-UP SURVEYS:
(A) Review and Plan Data Collection Methods
(B) Collect Baseline Data via Classroom Surveys
(C) Develop Samples from Completed Baseline Questionnaires
(D) Collect Baseline Data from School Files
(E) Enter Baseline Data into a Computer
See Pages 3.23 - 3.28 of Handbook
V. COLLECTION OF FOLLOW-UP DATA
(A) Make First Follow-up Contact (6 Months)
(B) Make Second Follow-up Contact (12 Months)
(C) Make Third Follow-up Contact (18 Months)
(D) Make Fourth Follow-up Contact (24 Months)
See Pages 3.28 - 3.37 of Handbook
VI. PREPARE AND CODE DATA FOR ENTRY INTO COMPUTER:
See Chapter 4 of Handbook
VII. USE COMPUTERS FOR DATA STORAGE AND ANALYSIS
See Chapter 4 of Handbook

The instructions in this chapter allow you some flexibility in making adjustments for your local needs. However, you need to preview this entire chapter and review **Chapter 2** before you decide what to include or exclude from your own survey.

I. Determine Scope of Data Collection

You will need to complete five primary tasks in the first stage: **(A)** review and confirm follow-up intervals, **(B)** decide how to collect the baseline data, **(C)** outline your data needs; and, **(D)** set a timetable for the project.

Decisions made in this initial phase will greatly determine the kind of information you finally have ready to analyze. For example, if you forget to ask some questions at the initial data collection period, your former students may not be able to remember these questions at a later date, or they may give you different answers when you call them two years later.

A. REVIEW AND CONFIRM FOLLOW-UP INTERVALS

First, you need to review the basic sequence of data collection for your follow-up study, then establish a time frame for making post-graduation contacts with your former students.

The data collection procedures outlined in this chapter have two basic parts. First, baseline data is collected about students while they are still in school. Second, "follow-up" data is collected from students at several intervals after they leave school.

You need to plan the time to make your first contact after the student cohort has left your school. You will also need to decide how many subsequent contacts you will make and when your final interview will be conducted. Studies show that more contacts and shorter intervals between contacts will increase your chances of tracking down your students and getting the answers to your questions. However, more interviews will also increase your cost. In order to strike a balance between your desire for more information and your need to contain costs, you might try the schedule presented in **Exhibit 3.2.**

B. MAKE A GENERAL DECISION ABOUT THE STUDENTS TO BE SURVEYED

Your second task is to target student populations for study and determine how you wish to select students to be surveyed.

Start early to define the **type of students** you wish to survey. It is important that you don't cast aimlessly for data! Survey the students who will enable you to answer your research questions! If you make the mistake of selecting the wrong students to study, you will get irrelevant or biased information. As you know, this handbook has been developed to collect data on special education students and a general group of non-special education students.

Next, you will need to decide whether to take a **census** or a **sample** of students. Unless your district is very large, you will want to plan on taking a census of your special education students, that is, you will want to interview every one of them. Then you will want to decide how to collect data from the general education groups that will be used for a control group (*i.e.*, as a basis of comparison) in your research. When it comes to follow-up surveys of the general student population, you will generally need to use random selection procedures to select a sub-group of the students you are studying. Random selection means that everyone in the group has an equal chance of being selected. It should be used when you take a sample (*i.e.*, interview some of the group rather than everyone in the group.)

We have designed this follow-up handbook so that you will collect data on all students prior to graduation regardless of whether they are special or general education students. These procedures provide the most efficient approaches for data collection and sampling. After these baseline questionnaires are completed by all pre-graduation students, you can sample the completed baseline questionnaires according to the demands of your research task.

(1) Select the Special Education Students to Survey

The number of students that you study will significantly affect the scope and cost of your follow-up study. If you decide to follow up all special education students who have attended the schools in your district, and if the district is large, the scope of your research will be wide and quite costly.

If you are planning to make comparisons between different sub-groups (*e.g.*, minorities and non-minorities), you will need larger sample sizes. If you want to compare female minorities, male minorities, female non-minorities, and male non-minorities, you will need a larger sample than if you plant to compare only two sub-groups at a time. Comparing only males and females will require a smaller sample size than if you decide to compare more complex sub-groups.

(2) Select the General Education Students to Survey

You may want to only follow up on a random sample of the general education students. We recommend that you take a sample of general education students that is equal to the number of special education students who are in your population of graduating seniors. This is so that you will not have problems with statistical weighting procedures when it comes to doing the comparisons at the end of the study.

(3) Decide Which Agencies Will be Helpful

It is generally advisable to solicit the support of local groups and agencies in your community before you begin your research. These organizations may provide data on students and help you locate students after they have left school.

You will also need to decide which agencies and community groups you want to contact when you need help tracking down former graduates in your target groups. You

may also be able to collect other information about these students from the agency managers if you get the students and/or their parents to sign consent forms while the students are still in high school. A particularly important group of data about the special education students will be contained in records from agencies such as the Department of Rehabilitation, Community Mental Health, County Welfare, local public and private hospitals, and various city and county social services. In addition, there are numerous private sector agencies worth contacting such as United Way, sheltered workshops, and centers for independent living.

Although these agencies may provide services to your special education students, the data may not be made available to you. It is important before launching the research project that you contact those agencies to determine what forms may need to be filled out and what other procedures may need to be completed in order to obtain information about the students if it is deemed necessary. Many public agencies are constrained from providing information about individuals by state and federal regulations. This means that even if the school district authorizes your request for information, the agencies may not be able to give you the data. If you think that you may need assistance and information from non-school organizations, it is advisable to contact these sources early to develop agreements and procedures.

At this stage, you will need to develop a clear agreement among involved parties concerning the general scope of study. Changing the scope or topics to be studied once a study is underway is very costly and often not possible. You will need to get agreement about the basic questions of the study and the basic groups of the study at this time. Later in the project, these scope issues can be more fully and operationally specified. It is better to delete questions than to add questions after you get started in a survey. In the case of the latter, the cost and complexity are often not worth the data that is desired.

Exhibit 3.2

PROPOSED DATA COLLECTION STAGES OF FOLLOW-UP STUDY

Timing of Event:	**Data Collection Event:**
Prior to Graduation:	**Collection of Baseline Data:**
Just prior to Graduation	Baseline Questionnaire
After Graduation:	**Collection of Follow-up Data:**
2 Months	Data Collection from School Records
6 Months	Postcard and/or Short Phone Contact (Current Address and 3 Questions)
1 Year	Detailed Phone Interview
18 Months	Postcard and/ or Short Phone Contact (Current Address and 3 Questions)
2 Years	Detailed Phone Interview

C. DECIDE HOW TO COLLECT BASELINE DATA

A baseline survey is important because it can provide you with a sampling frame (or list) of "completer" students and basic demographic data on these students. Although you can use either school records or a classroom survey, we recommend using both. **Appendix 1** provides a baseline questionnaire to be administered in the classroom. **Appendix 2** provides a data collection form for gathering baseline information from school records.

Baseline questionnaires are the only source of information about the personal views of the graduating students. Consequently, baseline questionnaires provide the only source of information on their current working status, their perceptions of life, and contact persons for follow-up interviews.

Additional data can be collected from the school records of the graduating students. This information will be important for assessing the validity of the data and for examining the school environment of the students under study. This data can be collected from the school records in the summer after the students have graduated and you have identified the sample of students you wish to contact for follow-up interviews.

Key reasons for conducting baseline student surveys are outlined below:

(1) Simplifications of Sampling Procedures.

Baseline surveys automatically provide you with a list of students that you can use for your follow-up surveys. Note also that in any type of panel follow-up survey, such as the one outlined in this handbook, there will be some who are not available at the end of the project period to answer the final set of questions. Consequently, it will be a good idea to collect data from enough students to overcome the loss of respondents two years later. A good practice is to assume that you will lose 50 percent of the initial respondents. We propose that a census of graduating seniors be taken for the baseline questionnaire. You can then sample from that baseline census.

(2) Collect Information that will Otherwise be Unavailable.

Your baseline procedures will give you information that will otherwise be lost if you do not collect it before the students leave school whereas, you can collect views and information from students while they are still in school. You will find it difficult or impossible to collect this type of data at later dates because students change their views. Additionally, baseline surveys will allow you to collect data that you may not be able to get in follow-up interviews. Keep in mind that there are limits to how long respondents will cooperate during follow-up interviews; if you ask questions during the baseline survey, it will shorten the time required for your follow-up interviews.

(3) Increased Student Cooperation.

If you use a classroom to conduct your baseline survey, you will have a chance to tell students about the follow-up interviews that you need their participation in after they graduate. You can use this time to sell the importance of your project. Research suggests that students who have taken baseline surveys are far more likely to cooperate when approached for a follow-up interview.

(4) Backup Phone and Address.

You will be able to collect the name, phone and address of relatives or friends who will know how to locate the student if he or she has moved since leaving school. This will save you considerable time and expense, and greatly increase your response rates.

(5) Reduce Personal Confidentiality Problems.

During classroom administered baseline surveys, students and/or their parents or guardians can be asked to sign an agreement to allow survey administrators to use personal information and to agree to participate in future data collection efforts. This form establishes a consent to collect future information and to use available information that the school may have to improve the understanding of the students' situation. Remember that there is a federal law about the privacy of information, and it is important to note that a written agreement will reduce the problem of collecting information in the future. You can also ask them to sign statements which will make it easier for agencies such as the Department of Rehabilitation to provide you with their addresses and other information after the students have left school.

(6) Reduce Cost

Contrary to common impressions, baseline surveys are likely to reduce rather than increase your costs. As noted above, baseline surveys allow you to get the information before you have to pay for telephone or on-site interviews. This is true whether you use a classroom survey or a combination of the IEP files and interviews to get your baseline data. They also reduce the costs of conducting follow-up interviews, by encouraging student cooperation and providing backup phone numbers.

D. REVIEW DATA NEEDS AND ADD SURVEY QUESTIONS

Once you have decided how to collect baseline data, you should review the questions to be used to collect data. The questionnaires and data collection forms provided in this kit can be modified if necessary to meet your needs. This section will (1) outline the levels of data collection provided in this handbook; (2) summarize the types

of data that can be collected by the forms and questionnaires provided in this handbook; (3) design special custom questions; and (4) check data compliance needs.

(1) Overview of Data Collection Priorities

It will be helpful to outline the priorities that have guided the development of the forms and questionnaires in this handbook. These forms and questionnaires provide two levels of detail:

Required Follow-up and Compliance Data. The first level of detail provides a "bare bones" approach for the collection of basic information about the post-program activities of students and of data to meet the follow-up data compliance requirement of different agencies. This level of detail collects data that is essential for a basic follow-up study.

Elaborative and Explanatory Data. The second level provides data which elaborates post-program impacts and explains student outcomes. This explanatory data can be generally categorized in terms such as student employment goals, life satisfaction and relevance of training to employment activities.

(2) Overview of Survey Questions

Exhibit 3.3 provides an overview of data that can be collected with the forms and questionnaires that accompany this handbook. The actual forms and questionnaires are presented in the appendices. **Appendix 1** provides the questionnaire for the baseline classroom survey. **Appendix 2** provides the data collection form for gathering baseline data from school records. **Appendix 3** provides the template for post cards to be mailed to former students six months and eighteen months after they leave school. **Appendix 4** provides the questionnaire to be administered by phone or face-to-face interviews twelve and twenty-four months after students leave school. You should review these appendices carefully to make sure that they meet your needs.

(3) Design Special Questions

Provisions have been made for the addition of up to four custom questions. For purposes of later data processing, it is recommended that responses to these optional questions be no longer than eight characters. Responses can be alphabetical characters (*e.g.*, MALE, FEMALE, UNKNOWN) or numeric (*e.g.*, 1, 200). Numeric responses can represent actual numbers (*e.g.*, 200=$200) or coding categories (*i.e.*, 1=male). Decimals can be added by inserting a period at the appropriate point (*e.g.*, 200.15 for $200.15). These questions have the code names of **OPTION1, OPTION2, OPTION3** or **OPTION4**. If kit users are confused by these constraints, it is advised that they seek the advice of someone familiar with data base management software. When designing custom questions, kit users are urged to follow the question formats that have been used for the pre-designed questions.

Exhibit 3.3
OVERVIEW OF QUESTIONNAIRES AND DATA COLLECTION FORMS

Question Code Name:	Description of Question:
Appndx1:	**Baseline Class Survey:**
IDINST	Institutional Identification Number
LASTNAME	Student's Last Name
FRSTNAME	Student's First Name
INITIAL	Student's Initial
IDSTUDNT	Student Survey Identification Number
SSANMBR	Student's Social Security Number
RESPOND	Respondent
CONTACT1	Name of First Contact Person
ADDRESS1	Address of First Contact Person
CITY1	City of First Contact Person
STATE1	State of First Contact Person
ZIPCODE1	Zip Code of First Contact Person
PHONE1	Phone of First Contact Person
CONTACT2	Name of Second Contact Person
ADDRESS2	Address of Second Contact Person
CITY2	City of Second Contact Person
STATE2	State of Second Contact Person
ZIPCODE2	Zip Code of Second Contact Person
PHONE2	Phone of Second Contact Person
CONTACT3	Name of Third Contact Person
ADDRESS3	Address of Third Contact Person
CITY3	City of Third Contact Person
STATE3	State of Third Contact Person
ZIPCODE3	Zip Code of Third Contact Person
PHONE3	Phone of Third Contact Person
GRADDAT	Month and Year You Graduate
EMPLOY1	Employment Situation
SOCCODE1	Standard Occupational Code Number
SOCTITL1	Standard Occupational Title
EMPLYR1	Name of Company Where You Work
PAY1	Hourly Wage
JOBHRS1	Average Hours Worked Per Week
JOBSRCE1	How You Got Your Current Job
EDVALUE1	Education used on Job
ENG1	Courses in Basic English
AENG1	Courses in Writing & Literature
MATH1	Courses in Basic Mathematics
AMATH1	Courses in Algebra, Geography or Trig
SCIENC1	Courses in Sciences
WKEXP1	Courses in Wk Experience or Training
JOBSCH1	Courses in Searching for a Job
COMUSE1	Courses on Using Community Facilities
SLFCAR1	Courses in Domestic Self Care Skills
HMGMT1	Course in Home Management Skills
BUSWK1	Courses in Business or Office Work
INDART1	Courses in Industrial or Tech. Trades
AGRIC1	Courses in Agriculture or Horticulture
RETAIL1	Courses in Retailing or Merchandising
HMECON1	Courses in Home Economics
PARENT1	Parents or Guardians
RELATIV1	Relative Other than Parent
COUNSLR1	Guidance Counselor
TEACHR1	Teacher
PRINCPLE1	School Principal or Asst. Principal
CLERGY1	Clergy
JOBOFF1	State Employment Service Officer
ADULT1	Other Adult
FRIEND1	Friends Your Own Age
YOU1	Yourself
GOAL1	Plans for Next 2 years
HOMESAT	Present Living Arrangements
EDUCSAT	Education & Training Satisfaction
PHYSSAT	Physical Health Satisfaction
MENTSAT	Mental Health Satisfaction
SOCPART	Club & Organization Participation
MOBILITY	Outside Activities
SLFCTRL	Self Control of Activities
DECISSAT	Making Life Decisions
LEISURE	Leisure & Recreational Opportunities
FRIENDS	Personal Friends
INTIMATE	Someone Close
LIFESAT	Happy with Life
Appndx2:	**Data from School Records:**
COLLCTR	Name of Data Collector
TITLE	Title of Data Collector
SCHOOL	School Employing Data Collector
CPHONE	Phone of Data Collector
IDINST	Institutional Identification Number
LASTNAME	Student's Last Name
FRSTNAME	Student's First Name
INITIAL	Student's Initial
IDSTUDNT	Student Survey Identification Number
SSANMBR	Student's Social Security Number
PARENT	Parent or Guardian's Name
PADDRESS	Parent's Address
PCITY	Parent's City
PSTATE	Parent's State
PZIPCODE	Parent's Zip Code
PPHONE	Parent's Phone Number
CONTACT4	Name of First Contact Person
ADDRESS4	Address of First Contact Person
CITY4	City of First Contact Person
STATE4	State of First Contact Person
ZIPCODE4	Zip Code of First Contact Person
PHONE4	Phone Number of First Contact Person
CONTACT5	Name of Second Contact Person
ADDRESS5	Address of Second Contact Person
CITY5	City of Second Contact Person
STATE5	State of Second Contact Person
ZIPCODE5	Zip Code of Second Contact Person
PHONE5	Phone Number of 2nd Contact Person
SCHOOL	Student's School
SCHLADR	Address of Student's School
SCHLCITY	City of Student's School
SCHLZIP	Zip Code of Student's School
LIVEWITH	Who Student is Currently Living With
SEX	Sex of Student
RACE	Race of Student
STRTDATE	Year Student Entered School
CERTIF	Certificate Student Expected to Obtain
PRGTYPE	High School Program Enrolled in
PRIMRSRC	Program Resource
DISTYPE	Disability of Student
INTRPNED	Interpreter Needed for Interview
INTRPNAM	Name of Interpreter
INTRPAD	Address of Interpreter
INTRPCTY	City of Interpreter
INTRPST	State of Interpreter
INTRPZIP	Zip Code of Interpreter
INTRPPHN	Phone of Interpreter
Appndx3:	**Follow-up Postcards:**
IDINST	Institutional Identification Number
LASTNAME	Student's Last Name
FRSTNAME	Student's First Name
INITIAL	Student's Initial
IDSTUDNT	Student Survey Identification Number
EMPLOY2	Current Employment Situation
PAY2	Hourly Pay Level
Appndx4:	**Follow-up Questionnaire:**
IDINST	Institutional Identification Number
LASTNAME	Student's Last Name
FRSTNAME	Student's First Name
INITIAL	Student's Initial
IDSTUDNT	Student Survey Identification Number
SSANMBR	Student's Social Security Number
RESPOND	Respondent
EMPLOY3	Current Employment Situation
SOCCOD3	Standard Occupational Code Number
SOCTITL3	Standard Occupational Title
PAY3	Hourly Pay Level
JOBHRS3	Hours Worked Per Week
BHLTH3	Health Insurance Benefit
BSICK3	Sick Leave
BVAC3	Paid Vacations
JOBLNGH3	Length of Time Working
JOBSRCH3	How Long to Find Job After High School
JOBNMB3	How Many Jobs Since High School
WRKTRAN3	How You Usually Get Work
EDVAL3	High School Studies Related to Job
CARVAL3	Value of Education to Career
PEOPLE3	Working With People
JOBFUN3	Job Satisfaction
NOSKIL3	Lack of Work Skills
NOTRAN3	Lack of Transportation to Work
BENLOSS3	Loss of SSI or Public Income
HLHPRB3	Health Problems on the Job
NOINT3	Not Wanting a Job
EDREQ3	Continuing Education or Training
MARITAL3	Marital Status
SPSDWK3	Spouse Working
NOCHLD3	How Many Children
FAMINC3	Family Income
ENG3	Courses in Basic English
AENG3	Courses in Writing and Literature
MATH3	Courses in Basic mathematics
AMATH3	Courses in Algebra, Geography or Trig.
SCIENC3	Courses in Science
WKEXP3	Courses in Work Experience or Training
JOBSCH3	Courses in Searching for a Job
COMUSE3	Courses on Using Community Facilities
SLFCAR3	Courses in Domestic Self Care Skills
HMGMT3	Courses in Home Management Skills
BUSWK3	Courses in Business or Office Work
INDART3	courses in Industrial or Tech. Trades
AGRIC3	Courses in Agriculture or Horticulture
RETAIL3	Courses in Retailing or Merchandising
HMECON3	Courses in Home Economics
FAMILY3	Family or Friend
AGENCY3	School or Agency
YOU3	Yourself, with Little Help
HMSAT3	Present Living Arrangements
EDUCSAT3	Training and Education Satisfaction
PHLTH3	Physical Health Satisfaction
MHLTH3	Mental Health Satisfaction
SOCSAT3	Clubs or Organizations Participation
MOBSAT3	Outside Activities
CTRLSAT3	Organize Outside Activities
DECSAT3	Life Decisions
LEISSAT3	Leisure and Recreational Activities
FRNDSAT3	Friends
INTMSAT3	Someone Close

(4) Check Data Compliance Needs

Kit users should double check questions to insure that they meet state and federal data compliance requirements.

This Survey Kit provides questions which meet the data compliance requirements of most agencies. **Exhibit 3.4** provides a guide for those agencies interested in using this kit to meet their reporting requirements. *There are, however, some limitations*. Unless special plans are made, the procedures in this handbook will not provide comprehensive "census" information on all students, since sampling is commonly recommended. Secondly, the procedures outlined here will not answer reporting requirement questions which rely on the full set of administrative records collected at the time of enrollment. Finally, this handbook does not provide for the collection of follow-up information from employers such as that required for JTPA programs.

E. SET A TIMETABLE FOR THE PROJECT

Before you go any further, you should review the key tasks to be conducted and set a preliminary timetable for your project. **Exhibit 3.5** contains a work sheet that will help you develop a project timetable. This work sheet isolates key project tasks and provides spaces for you to enter the completion dates for these tasks. You should immediately define key scheduling constraints, such as school term completion dates and the time period between the termination dates and follow-up interviews. Then you will need to estimate the time needed to complete project tasks in order to complete the initial timetable for the project. Four steps are recommended:

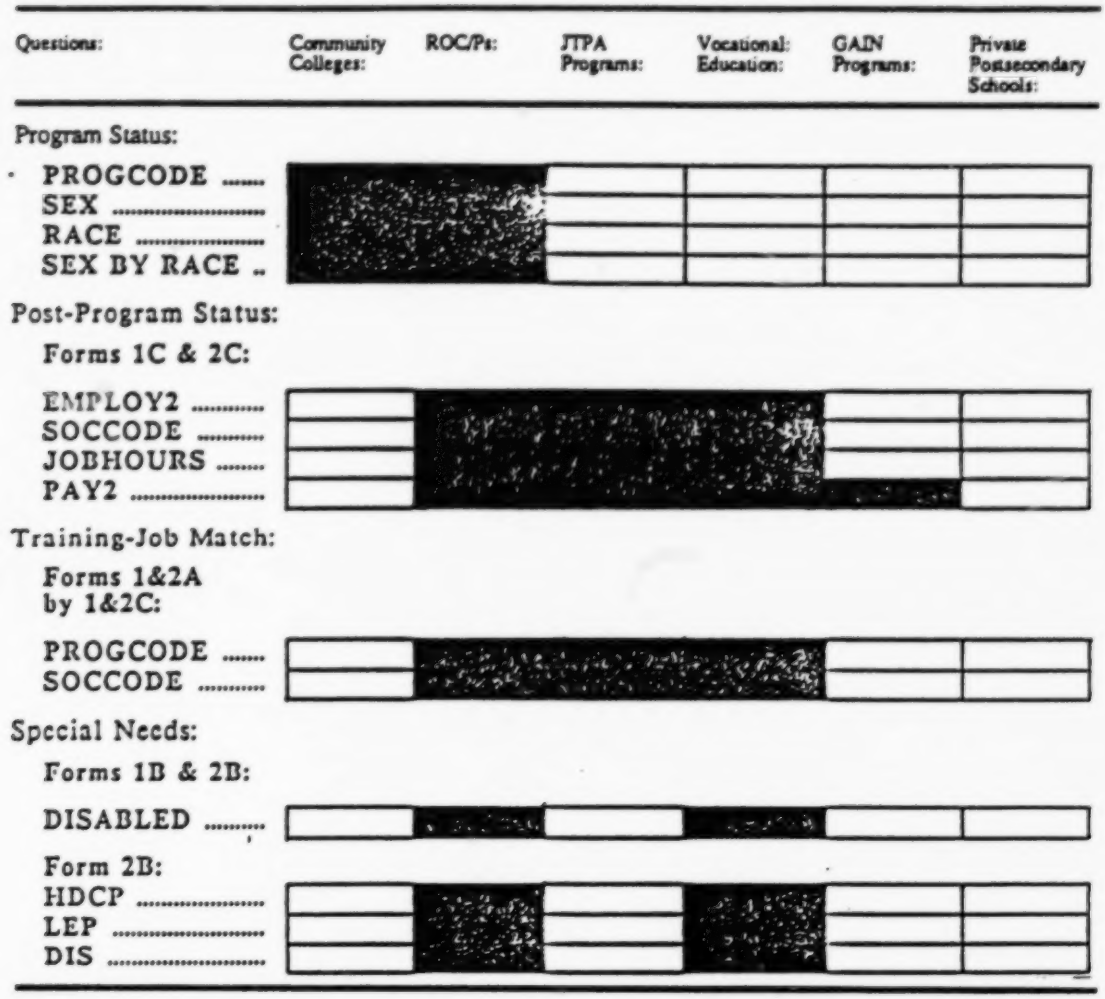
(1) Determine School Termination Dates

The date that students graduate or leave school will determine when the baseline survey can be conducted and when the count-down begins between student departure dates and follow-up interviews. You will want to choose a specific time during their senior year, say two months before graduation, to do your baseline survey. When you use classroom surveys to collect your baseline data, try to schedule all of the surveys at the same time each year since students' views may vary across time. For example, students may be a lot more enthusiastic about their economics class at the beginning of the semester when they listen to the teacher's interesting lectures than at the end of the year when they receive their disappointing grades.

(2) Determine the Time Between Graduation and Follow-up Interviews

Remember that more contacts and shorter intervals will increase your chances of tracking down your students and getting the answers to your questions. However, it will also increase your cost. In order to strike a balance between your desire for more information and your need to contain costs, we suggest that you do follow-up contacts at 6

Exhibit 3.4
QUESTIONNAIRE-DATA COMPLIANCE REQUIREMENT MATRIX



NOTE: The exhibit here represents the follow-up data-reporting requirements of various state and federal occupational training projects. It does not purport to legally represent all data-reporting requirements. This exhibit specifies questions from forms and questionnaires that meet follow-up data requirements. Statutory and administrative requirements are cited below:

Community Colleges: The reporting items listed here are from the VEDS, NCES 2404-A, Part A (See "Instructions for VEDS form 2404-A Program Enrollment and Completion Report, Program Year 1985-86"). ROC/P's: California State Department of Education, FUSE Operations Handbook, 1981 and State of California, form VEA-45. JTPA Programs: U.S. Department of Labor, Employment and Training Division, "Follow-up Technical Assistance Guide for Postprogram Data Collection Under the Job Training Partnership Act, "Version 3.0, June 1986, Pp 17-21. Kit users should note that this follow-up survey kit does not interview employers to confirm job placement. Vocational Education: Same as ROC/Ps. GAIN Program: State of California, SDSS-Manual-EAS-85-05, 42-720 "Gain County Plan", (.7) Data Collection, Paragraphs, h & l. Private Postsecondary Schools: No follow-up data requirements.

Exhibit 3.5
WORKSHEET FOR PLANNING FOLLOW-UP SURVEY TIMETABLE

Target Start Date:	Target End Date:	Estimated Duration of Task (Workdays):	Stage and Task Description:
			I. DETERMINE FOLLOW-UP DATA NEEDS:
__/__/__	__/__/__	___ Days	(A) Review and Confirm Follow-up Intervals
__/__/__	__/__/__	___ Days	(B) Make a Decision about Students to Survey
__/__/__	__/__/__	___ Days	(C) Decide How to Conduct a Baseline Survey
__/__/__	__/__/__	___ Days	(D) Review Data Needs and Select Survey Questions
__/__/__	__/__/__	___ Days	(E) Set a Timetable for the Project
			II. DEVELOP INSTITUTIONAL LIAISONS AND SPECIFY SAMPLING GOALS:
__/__/__	__/__/__	___ Days	(A) Develop Institutional Liaisons
__/__/__	__/__/__	___ Days	(B) Specify Sampling Goals
			III. ASSESS RESOURCE NEEDS AND FINALIZE GOALS:
__/__/__	__/__/__	___ Days	(A) Review Goals, Organization and Resources
__/__/__	__/__/__	___ Days	(B) Assess Costs
__/__/__	__/__/__	___ Days	(C) Adjust Project to Balance Needs and Resources
			IV. COLLECT BASELINE DATA AND PREPARE FOR FOLLOW-UP SURVEYS
__/__/__	__/__/__	___ Days	(A) Review and Plan Data Collection Methods
__/__/__	__/__/__	___ Days	(B) Collect Baseline Data via Classroom Surveys
__/__/__	__/__/__		*Program Completion Date*
__/__/__	__/__/__	___ Days	(C) Develop samples from Completed Baseline Questionnaires
__/__/__	__/__/__	___ Days	(D) Collect Baseline Data from School Files
__/__/__	__/__/__	___ Days	(E) Enter Baseline Data into a Computer
__/__/__	__/__/__		*Begin Follow-up Contacts*
			V. COLLECT FOLLOW-UP DATA:
__/__/__	__/__/__	___ Days	(A) Make First Follow-up Contact (6 months)
__/__/__	__/__/__	___ Days	(B) Make Second Follow-up Contact (12 months)
__/__/__	__/__/__	___ Days	(C) Make Fourth Follow-up Contact
__/__/__	__/__/__	___ Days	*Complete Follow-up Phone Interviews*
__/__/__	__/__/__	___ Days	**VI. PREPARE AND CODE DATA FOR ENTRY INTO COMPUTER:**
__/__/__	__/__/__	___ Days	**VII. USE COMPUTERS TO STORE AND ANALYZE DATA**

months, 1 year, 18 months, and 2 years after graduation. You might want to review **Exhibit 3.2** for the types of contacts suggested at these intervals.

(3) Estimate Time Requirements for Project Tasks

Next, you will need to make a preliminary estimate of the time required for key project tasks. Since significant parts of the plan have not yet been completed, you will need to make preliminary estimates to develop a "ballpark" project schedule. While these estimates may be crude, it is important to establish a rough timetable to insure that key dates for effective project management are not missed. Use your best judgment to estimate task completion times. When you find it difficult to estimate the task completion time, it is better to overestimate than it is to underestimate. Your project timetable can be revised as your planning process continues.

(4) Check Timetable to Ensure Data Quality

The timing of your follow-up survey can have considerable impact on the quality of your data. It is important that there be a reasonably consistent period of time between the dates of graduation and follow-up interviews. After you have started interviewing, it is extremely important that you complete the interviews as rapidly as possible. If you take too long between the start and completion of interviews, the passage of time can contaminate your data. For example, assume that the first students are interviewed promptly at thirty weeks after leaving school, and the last interviews are completed twenty-eight weeks after the completion date. The students who were interviewed last clearly had more time to find a job. This difference in time between program completion and follow-up interviews will produce biased outcome data.

Although the timetables you develop at this stage will be based on estimates, they are a very important first step toward getting a general idea of what needs to be done. Take your best shot with the understanding that you can adjust this schedule as project plans finalize.

II. Develop Institutional Liaisons and Specify Sampling Goals

This stage outlines how to (A) identify contact persons within your school and the community, and (B) set sampling goals.

A. DEVELOP INSTITUTIONAL LIAISONS

It is important to identify the local groups that have resource commitments to special education students. They can become important allies in starting this type of research, and they can provide important information for the efficient and representative conduct of the study. Some of the agencies that might be important include state and local social service agencies and local special education organizations.

(1) Identify and Contact School Liaisons

You will not be able to complete this research without the cooperation of key staff within your school. Contact school administrators first to solicit their support for your research efforts. If you can convince the administrators that your research is worthwhile, they will sell the idea to other employees whose cooperation is essential for your success. You will also need the help of employees who oversee the IEP files and other institutional records that you want to use. It will be particularly important to get the cooperation of special education teachers who will administer classroom surveys and those who will assess the special education students' abilities to complete telephone interviews.

(2) Identify and Contact Non-School Liaisons

It will also be important to identify and contact employees in community agencies such as the Department of Rehabilitation, Department of Health and Human Services, County Mental Health, local hospitals and medical facilities, and private social services agencies can also be helpful. These agencies may be able to help you locate special education students; they may also be an important data source if you get permission from students and/or their parents and custodians while the students are still in school. Employees at these agencies could verify the information that you get from the interviews and they could supply you with other information about your former students. The people at these agencies might also help to provide information about clubs or networks of former special education students in the community. This information can be invaluable in attempting to assess the quality of life and the economic conditions of former special education students. Contact such persons early, inform them of your plans, and involve them in your planning activities. Over the long run, this will pay great dividends in cooperation.

B. SPECIFY BASIC SAMPLING GOALS

You need to decide if your goal is to take a sample or a census. Typically, a sample is less costly. However, there are times when it is more important to take a census than a less costly sample.

There are three major issues to consider before you decide to take a sample or a census. Two of them are related to the research questions in the study, precision and sub-sample analysis. The third is related to the amount of resources available to the project.

As you interview more people, the quality of your data also increases, up to a point (**See Chapter Two**). Let's say that you have 200 special education students and you decide to take a sample of them. You would get a big improvement in the precision of your data if you increased your sample from 20 to 30. However, you would get a much smaller improvement in the precision of your data if you increased your sample from 100 to 110. These statements would still be true if you had 2,000 or 20,000 special education students as the population from which you take your sample. Consequently, it really does not pay to take a census when you have a large number of individuals in your target population (**See Exhibit 3.6**).

With regard to the precision of sub-sample analysis, the researcher should consider what main data breakdowns will occur in the analysis. In order to assure yourself that there will be robustness in the sub-sample sizes, it is important to calculate the expected sub-sample size in the final data set. An example might help: assume that you have sampled 200 students and that you are interested in looking at how boys and girls differ in their job-finding success after graduation. If the ratio of boys to girls is about 50/50, an analysis of only girls in the sample will allow you to work with a sub-sample of 100. In this example the precision of the estimate has dropped by plus or minus 2.9 percent points, from plus or minus 6.9 percent to plus or minus 9.8 percent. Exhibit 3.6 summarizes some of the relationships between sample, sub-sample sizes, and standard errors of the mean.

Exhibit 3.6
EXAMPLES OF SAMPLING ERROR FOR DIFFERENT SAMPLE SIZES AND POPULATIONS
(95 Percent Confidence Level for 50-50 Response Distribution)

Population Size:	Sample Size:						
	25	50	100	250	500	1,000	2,500
25	0%	NA	NA	NA	NA	NA	NA
50	18%	0%	NA	NA	NA	NA	NA
100	19%	11%	0%	NA	NA	NA	NA
250	21%	14%	8%	0%	NA	NA	NA
500	21%	14%	9%	5%	0%	NA	NA
1,000	22%	15%	10%	6%	4%	0%	NA
2,500	22%	15%	10%	6%	4%	2%	0%
5,000	22%	15%	10%	6%	4%	3%	1%
10,000	22%	15%	10%	6%	4%	3%	2%
50,000	22%	15%	10%	6%	4%	3%	2%

NOTE: This table shows the percent plus or minus that sample responses may vary from the population for different sample and population sizes.

The formula for calculating the above sampling errors is:

$$\text{Standard Error} = P\pm = t\sqrt{(1-f)} * \sqrt{\frac{P(q)}{n-1+1/2n}}$$

Where: t = 1.96; p(q) = (.5)*(.5) = 50-50 Response Distribution;
f = n/N; n = Sample Size; and N = Population Size

SOURCE: William G. Cochran, *Sampling Techniques*, Third Edition (New York, John Wiley and Sons), 1977.

Although there are a number of factors that complicate the decision, those of you who do not want to take a degree in statistics might consider adopting the following rule:

- **For any given year, if you have fewer than 400 in your target population (*e.g.*, graduating special education students *or* graduating general education students), take a census (*i.e.*, interview every one of them);**

- **If you have 400 or more in your target population, take a random sample (*i.e.*, interview 400 of them).**

Since most schools systems have more than 400 general education students, you will probably want to take a sample of this group. However, many of you at schools that have fewer than 400 special education students may wish to take a census of your special education students. It is good practice, when making comparisons between groups, to have about the same size of group membership in both of them. This equality in group size eases the methods of statistical analysis.

Try to develop a ballpark estimate of the number of students in your two target groups, special education students and general education students, so that you can make your decision to either take a census or a sample. Then keep these numbers available to estimate your survey costs in the next section of this chapter.

Exhibit 3.7 is presented to help you make decisions about sampling. This table presents the sample sizes needed to attain two different error tolerances in estimation; 5 percent error and 10 percent error.

III. Assess Resource Needs and Finalize Goals

Planning surveys usually requires that ideal research goals be balanced against available resources. This stage will help you assess resource needs and adjust your survey goals before "rolling up your sleeves" for final preparations and data collection. The primary tasks at this stage include (A) reviewing goals, organizations and resources; (B) assessing resource needs; and (C) adjusting the project to balance needs and resources. Before committing time and resources to further planning and preparations, it is important to complete this stage to insure that your goals are feasible given the resources you have available.

A. REVIEW GOALS, ORGANIZATIONS AND RESOURCES

After you reach an agreement among your key project staff about your research goals and have an assurance of organizational and inter-agency liaison and cooperation, it is important to assess resource needs. There are three tasks that are necessary to consider at this point: (1) specify project scope; (2) outline project organization and delegation of responsibilities; and (3) review cooperation from agencies that might help in the research.

Exhibit 3.7
REQUIRED SAMPLE SIZES FOR FINITE POPULATION SAMPLING

Population Size:	Samples Sizes Required for Error Tolerances:	
	5% Error Tolerance	10% Error Tolerance:
100	Census	Census
200	Census	67
300	Census	75
400	Census	80
500	222	83
600	240	86
700	255	88
800	267	89
900	277	90
1000	286	Assume Infinite Population
1250	303	Assume Infinite Population
1500	314	Assume Infinite Population
1750	326	Assume Infinite Population
2000	333	Assume Infinite Population
2500	345	Assume Infinite Population
3000	353	Assume Infinite Population
4000	Assume Infinite Population	Assume Infinite Population

ASSUMPTIONS: (1)"t" = 2.0; (2) p=.5 & q=.5; (3) willingness to tolerate error in the estimate for the sample is either 5% or 10% points.

SOURCE: This table is derived from William G. Cochran, *Sampling Techniques*, Third Edition (New York: John Wiley & Sons), 1977, Pages 24-29 and 72-85. The formulas used for these calculations are:

(1) $$n_o = \frac{t^2 \ (p)\,(q)}{d^2}$$

& for the finite population correction factor:

(2) $$n = \frac{no}{1 + (n - 1)/N}$$

Cochran recommends a general rule: If the sampling fraction is 10% of any given population, assume an infinite population. The procedures used for this table were to first calculate the optimum sample size given the confidence range "t", the tolerable error, 5 percent or 10 percent, and the most conservative proportions p=.50 and q=.50.

(1) Estimate the Number You Plan to Survey

Resource needs cannot be estimated until you estimate the number of people you plan to survey. Review this information carefully to estimate the scope of your proposed data collection and develop a framework for assessing project costs. This assessment will require you to outline all the research activities you plan to conduct over the two year period.

(2) Outline Project Organization and Delegation of Responsibilities

Cooperation from school and non-school organizations may provide support and resources that will impact your cost estimates. Under most circumstances, it is important that one individual have explicit responsibility for coordinating the project. You might consider appointing a larger committee which has representatives from interested groups (*e.g.*, the Department of Rehabilitation, local medical staff, Lions International) to help with backup and contacts. It might be especially important to include members of your local special education advocacy group who are organizationally active. Such groups can provide important support and very useful information about students who have left the high school.

It is critical that you carefully assess the level of cooperation from the administrators, teachers and any agencies that you plan to use in this study. If some large state or county social service agencies refuse to give you information even though you have signed consent forms, recognize that they are under pressure to maintain confidentiality according to the law; you may have to find another data source for tracking some of the students over time. Worse yet, if your own teachers refuse to help you administer the baseline surveys, you may have to cancel the entire project. Cooperation from the respondents, the community, and the professionals in the school system is an essential pre-requisite.

B. ASSESS COSTS

This section provides information to help you develop a project budget. It includes an illustrative cost estimate, a work sheet for developing an initial cost assessment, and suggestions for adjusting your cost estimates so that they realistically represent your particular situation. Keep in mind that this section provides guidelines for estimating cost, ***not*** ironclad rules. There is no replacement for common sense and a full understanding of the resources available to you.

If you can calculate an accurate estimate of the average total cost of a complete set of data for one respondent in the proposed project, you have gone a long way towards completing the estimated budget total. The average total cost of an interview can be multiplied times the number of interviews to get a close approximation of the total cost of the project. You will need to estimate average total costs separately for special education and for general education students since there may be significant differences in the cost of collecting data from the two groups. Multiply the average total cost of the special education data collection times the number of expected interviews, do the same for the

general education students, and then add the two amounts together for the estimate of total cost.

(1) Study the Budget Examples

It is important to note that total costs increase as the number of respondents increase, but that the cost per average respondent goes down due to "economies of scale." Ultimately, the cost of your project will depend on the number you survey, and the specific conditions of your school district and community.

Exhibit 3.8 provides an illustrative cost assessment for specified survey goals. This particular example uses the recommended handbook procedures to collect baseline data on all students, and four follow-up data collection activities. Cost computations were based upon collecting a classroom questionnaire from all students and conducting follow-up surveys on 400 students. Those estimates also assume a single project coordinator who earns $11.00 per hour (wages and benefits) and interviewer/ data processors who earn $5.50 per hour. It does *not* include costs for administrative overhead. As a bottom line, this budget estimates that it costs approximately $46 for each of the completed five data sets per student surveyed. As noted above, costs per completed questionnaire can be expected to decline as the size of samples increases because planning and start-up expenses will be spread over more interviews. This budget has been estimated in 1987 dollars.

(2) Make Initial Cost Assessment

If you follow the directions in this section, you will be able to make a rough estimate of the cost of collecting baseline data in the classroom, entering and storing the data in a computer, and conducting the follow-up interviews. **Exhibit 3.9** provides a work sheet for making an initial assessment of resource needs. (This work sheet should be used to develop a quick *ballpark* cost estimate and help isolate some of the key resource needs. It should not be used to prepare a final project budget. You will need to develop a more precise assessment of costs based on local conditions, available resources and your project goals in order to create a final budget. As noted earlier, if your preview this entire chapter before you actually begin to make your estimates, you will have a better idea of what you will have to do to complete the project.

(3) Adjust Cost Estimate to Reflect Your Situation

The cost of your follow-up survey will depend on local conditions. Key issues to consider in estimating your costs include:

Fixed Costs or Overhead. You need to decide whether to use "fully allocated costs" or only "incremental costs" in your estimate. If you are concerned with "incremental costs," it is not necessary to include overhead such as office space, equipment and existing staff. You need only consider expenses that would not exist under regular circumstances (*i.e., special staff, long-distance phone calls, etc.*). Overhead should be considered if you are trying to estimate the cost of conducting this research on an on-going basis. Under those circumstances you might need to hire

Exhibit 3.8
DRAFT ILLUSTRATIVE COST ESTIMATE FOR FOLLOW-UP STUDY
(Cost Estimates Computed in 1987 Dollars for a Follow-up Sample of 400 Students)

I.	**DETERMINE THE SCOPE OF YOUR DATA COLLECTION ($11.00/hour 24/hrs)**	$264.00
II.	**IDENTIFY LIAISONS AND SPECIFY SAMPLING GOALS ($11.00/hour * 80/hrs)**	$888.00
III.	**ASSESS RESOURCE NEEDS AND FINALIZE GOALS ($11.00/hr * 40/hrs)**	$440.00
IV.	**COLLECT BASELINE DATA AND PREPARE FOR FOLLOW-UP SURVEY:**	
A.	Prepare Baseline Questionnaire/I.D. Senior Classes and Special Ed Students ($11.00/hr*40/hrs)	$440.00
B.	Meet with and Brief General Education Classroom Teachers ($11.00/hr * 8/hrs)	$88.00
C.	Contact and Brief Special Education Teachers ($11.00/hr * 24/hrs)	$264.00
D.	Prepare Class Survey Packets (Staff=$11/hr * 16/hrs + Duplication=$.05/pg * 400)	$396.00
E.	Distribute & Collect Questionnaires (Staff=$11/hr * 20/hrs + Travel=$.25*100mi)	$245.00
F.	Review Returned Questionnaires & Pull Follow-up Sample of 400 ($11/hr * 16/hrs)	$176.00
G.	Collect Data for 400 Students from School Records ($5.50/hr * 80/hrs)	$440.00
H.	Enter Baseline Data into a Computer ($5.50/hr * 10/hrs)	$55.00
I.	Finalize Timetable, Trackdown Non-Contacts, & Enter Changes into Computer ($11.00/hr * 40/hrs)	$440.00
	Subtotal for Baseline Data Collection and Follow-up Preparations	$2,544.00
V.	**COLLECT FOLLOW-UP DATA:**	
A.	First Follow-up Contact (6 Month Post Card)	
1.	Organize Follow-up Procedures ($11.00/hr*80/hrs)	$888.00
2.	Mail Follow-up Postcards (Stamps=2 * $0.22 * 400 + Stationary=400 * $0.10)	$216.00
3.	Phone Calls to Locate Students & Increase Responses ($5.50/hr*80/hrs)	$440.00
4.	Enter Data into Computer ($5.50 * 5/hrs)	$55.00
	Subtotal for First Contact	$1,599.00
B.	Second Follow-up Contact (12 Month Phone Survey)	
1.	Organize follow-up Procedures ($11.00/hr * 120/hrs)	$1,320.00
2.	Train Interviewers (Trainer=$11/hr * 24/hrs + Intervwr=$5.50/hr * 16/hrs * 4)	$616.00
3.	Interviewer Pay during Data Collection ($5.50/hr * 200/hrs)	$1,100.00
4.	Materials Costs (Long Distance Phone = $50 + Duplication = $100)	$150.00
5.	Review of 400 Completed Questionnaires ($11.00/hr * 16/hrs)	$176.00
6.	Enter Data into Computer Data File ($5.50/hr * 10/hrs)	$55.00
	Subtotal for Second Contact	$3,417.00
C.	Third Follow-up Contact (18 Month Follow-up Post Cards)	
1.	Organize Follow-up Procedures ($11.00/hr*80/hrs)	$888.00
2.	Mail Follow-up Postcards (Stamps=2 * $0.22 * 400 + Stationary=400 * $0.10)	$216.00
3.	Phone Calls to Locate Students & Increase Responses ($5.50/hr*80/hrs)	$440.00
4.	Enter Data into Computer ($5.50 * 5/hrs)	$55.00
	Subtotal for First Contact	$1,599.00
D.	Fourth Follow-up Contact (24 Month Phone Survey)	
1.	Organize follow-up Procedures ($11.00/hr * 120/hrs)	$1,320.00
2.	Train Interviewers (Trainer=$11/hr * 24/hrs + Intervwr=$5.50/hr * 16/hrs * 4)	$616.00
3.	Interviewer Pay during Data Collection ($5.50/hr * 200/hrs)	$1,100.00
4.	Materials Costs (Long Distance Phone = $50 + Duplication = $100)	$150.00
5.	Review of 400 Completed Questionnaires ($11.00/hr * 16/hrs)	$176.00
6.	Enter Data into Computer Data File ($5.50/hr * 10/hrs)	$55.00
	Subtotal for Second Contact	$3,417.00
VI.	**DATA ENTRY AND ANALYSIS (Depends on Resources and Goals)**	Unknown
	TOTAL PROJECT COSTS	$14,168.00

Exhibit 3.9
DRAFT WORKSHEET FOR ESTIMATING COST OF FOLLOW-UP STUDY

I. **DETERMINE THE SCOPE OF YOUR DATA COLLECTION** ($__.__/hr * __/hrs) . . $_____

II. **IDENTIFY LIAISONS AND SPECIFY SAMPLING GOALS** ($__.__/hour * __/hrs) . . $_____

III. **ASSESS RESOURCE NEEDS AND FINALIZE GOALS** ($__.__/hr * __/hrs) . . . . . $_____

IV. **COLLECT BASELINE DATA AND PREPARE FOR FOLLOW-UP SURVEY:**

A. Prepare Baseline Questionnaire/I.D. Senior Classes and Special Ed Students ($___.__/hr * ___/hrs) . . . . . $_____
B. Meet with and Brief General Education Classroom Teachers ($__.__0/hr * __/hrs) . . $_____
C. Contact and Brief Special Education Teachers ($__.__/hr * __/hrs) . . . . . $_____
D. Prepare Class Survey Packets (Staff=$__/hr * __/hrs + Duplication=$.05/pg * ___) . . $_____
E. Distribute & Collect Questionnaires (Staff=$___/hr * ___/hrs + Travel=$.25*___mi) . $_____
F. Review Returned Questionnaires & Pull Follow-up Sample OF ___ ($__/hr * __/hrs) . $_____
G. Collect Data for ___ Students from School Records ($___/hr * ___/hrs) . . . . . $_____
H. Enter Baseline Data into a Computer ($___/hr * ___/hrs) . . . . . $_____
I. Finalize Timetable, Trackdown Non-Contacts, & Enter Changes into Computer ($___/hr * ___/hrs) . . . . . $_____

Subtotal for Baseline Data Collection and Follow-up Preparations . . . . . $_____

V. **COLLECT FOLLOW-UP DATA:**

A. First Follow-up Contact (6 Month Post Card)

1. Organize Follow-up Procedures ($___/hr * ___/hrs) . . . . . $_____
2. Mail Follow-up Postcards (Stamps=2 * $0.22 * ___ + Stationary=___ * $0.10) . $_____
3. Phone Calls to Locate Students & Increase Responses ($___/hr * ___/hrs) . . . $_____
4. Enter Data into Computer ($___ * ___/hrs) . . . . . $_____

Subtotal for First Contact . . . . . $_____

B. Second Follow-up Contact (12 Month Phone Survey)

1. Organize follow-up Procedures ($___/hr * ___/hrs) . . . . . $_____
2. Train Interviewers (Trainer=$___/hr * __/hrs + Intervwr=___/hr * __/hrs * 4) . $_____
3. Interviewer Pay during Data Collection ($___/hr * ___/hrs) . . . . . $_____
4. Materials Costs (Long Distance Phone = $___ + Duplication = $___) . . . . . $_____
5. Review of 400 Completed Questionnaires ($___/hr * ___/hrs) . . . . . $_____
6. Enter Data into Computer Data File ($___/hr * ___/hrs) . . . . . $_____

Subtotal for Second Contact . . . . . $_____

C. Third Follow-up Contact (18 Month Follow-up Post Cards)

1. Organize Follow-up Procedures ($___/hr * ___/hrs) . . . . . $_____
2. Mail Follow-up Postcards (Stamps=2 * $0.22 * ___ + Stationary=___ * $0.10) . $_____
3. Phone Calls to Locate Students & Increase Responses ($___/hr * ___/hrs) . . . $_____
4. Enter Data into Computer ($___ * ___/hrs) . . . . . $_____

Subtotal for First Contact . . . . . $_____

D. Fourth Follow-up Contact (24 Month Phone Survey)

1. Organize follow-up Procedures ($___/hr * ___/hrs) . . . . . $_____
2. Train Interviewers (Trainer=$___/hr * __/hrs + Intervwr=___/hr * __/hrs * 4) . $_____
3. Interviewer Pay during Data Collection ($___/hr * ___/hrs) . . . . . $_____
4. Materials Costs (Long Distance Phone = $___ + Duplication = $___) . . . . . $_____
5. Review of 400 Completed Questionnaires ($___/hr * ___/hrs) . . . . . $_____
6. Enter Data into Computer Data File ($___/hr * ___/hrs) . . . . . $_____

Subtotal for Second Contact . . . . . $_____

VI. **DATA ENTRY AND ANALYSIS** . . . . . $_____Unknown

TOTAL PROJECT COSTS . . . . . $_____14,168.00

permanent employees, add office space, or buy equipment. Unless you are at the point of considering this as a permanent addition to your work load, do not use overhead costs; it is sunk cost that exists whether or not you do the study.

Donations and Cross-Agency Cooperation. Community support and special contributions can reduce costs substantially. If some of the groups that you are working with agree to help you conduct the telephone interviews, your costs may be reduced. However, be sure that your "volunteers" do not create more problems than they are worth. For example, reliance on volunteers to conduct telephone surveys may result in inconsistent interviewing procedures. Acting in what they consider to be the best interests of your special education students, volunteers may be tempted to influence the results of your study. It is better to have workers that are motivated by the dollar than by noble objectives! People who are working for wages will be much more concerned about following your directions. If you use volunteers, you may have to spend extra time explaining procedures and correcting errors. Volunteers may also have difficulty copying information from school records unless the district has a policy to cover non-professional access to the data. Volunteers can be a great help, but be sure that they are fully versed in the need to be consistent, reliable and objective.

Local Cost Factors. Each community will present unique cost considerations. Non-English speaking respondents and households lacking telephones, for example, can add substantially to your costs of data collection. You should carefully assess your local conditions for factors that may cause extra costs.

C. ADJUST PROJECT TO BALANCE NEEDS AND RESOURCES

After you have estimated the project costs, you can assess your resources to determine if you will be able to achieve your initial goals.

(1) Determine Gap Between Resources and Goals

If your resources are adequate to cover the costs of this project, proceed to Stage IV and begin preparations for data collection. If your resources are not adequate, you will need to solicit additional resources or scale back your project. The next section suggests areas for cutting back.

(2) Balance Resources and Goals

The most obvious options for reducing costs are to decrease sample sizes or to take a sample instead of a census of respondents. However, there are trade-offs to these options. Reducing the sample size reduces your ability to make generalizations about all students based on the results of your interviews. Reduced sample size also restricts your ability to analyze relationships among subgroups of your sample. For example, you might not be able to compare the transition process for males and females if your sample size is reduced. Say you have collected 200 interviews from special education students, and you want to compare the responses of males and females. About 56 percent of the girls have stated that they are pretty satisfied with life in general. If the sample was based on 200 girls responding, then you could say between 49 percent and 63 percent of

all your female special education students are pretty satisfied with life; if the sample is reduced to 100 respondents, then the interval estimate will be between 46.2 percent and 65.8 percent. (The precision of the estimate dropped from plus or minus 7 percent to plus or minus 9.8 percent.)

Some of these trade-offs may not be worth the reduction in cost (**See Chapter 2**).

(3) Review and Adjust Past Work Sheets

If you have decreased your sample size to reduce your costs, you should review the work sheets and tasks of prior stages to insure that they are adjusted to meet your revised goals (**See Exhibit 3.8**).

IV. Collect Baseline Data and Prepare for Follow-up Surveys

In this section you will find procedures and materials for planning and collecting your baseline data, and for planning your follow-up contacts.

This handbook recommends five contacts with respondents, and six sources of information. Three of these five contacts are designed primarily to collect information, and two are intended to keep tabs on your former students' whereabouts and to collect basic employment data. Your first contact will be the classroom survey designed to collect baseline information on graduating seniors about employment and other issues. After six months you will make your second contact with a postcard. This postcard contact will collect three pieces of information: employment status (two questions), and new information on phone or address changes.

The third contact will be made one year after the student has graduated. At this contact you collect a full set of data from each student. One and a half years after their graduation you will make your fourth contact using another postcard with three questions on it. Your fifth and final contact will require you to ask the set of follow-up questions.

A. REVIEW AND PLAN DATA COLLECTION METHODS

As indicated earlier in this handbook, there are two sources of data about the respondents in this follow-up study: **(1)** a baseline self reporting questionnaire, and **(2)** data from student records. The baseline questionnaire is designed to collect information from your students about their satisfaction with life, their employment status and their personal background. You will also collect data from student records, such as demographics (*i.e.*, age, race, etc.), information about the programs the student had in school, and their actual graduation date and status. This source of information is designed to supplement information collect via the baseline student questionnaire.

We propose that a census of all seniors be taken during the spring term of the academic year. This census will include both general education students and special education students.

The census can be done in the following manner. Identify the classrooms, such as a first period room or a home room which will have all seniors in it. Secondly, identify the locations of the classes (or special settings)

Develop plans that will ensure the first period rooms or home rooms of all seniors and the special education classes are targeted for administering the baseline questionnaires. Plan to collect all your baseline questionnaires on the same day.

B. COLLECT BASELINE DATA VIA CLASSROOM SURVEYS

Execution of the baseline classroom survey of graduating seniors requires (1) preparation of baseline survey packets, (2) administration of survey, and (3) review of forms for accuracy and double counting.

(1) Prepare Baseline Survey Packets

If you plan to have instructors administer the questionnaire without your presence in the classroom, it is important to prepare a survey packet for each class. This packet should contain questionnaires for every student, plus a few extras (**See Appendix 1**). The preliminary classroom or training site information should be pre-entered on each questionnaire. A one page cover sheet should be placed on top of this packet with pre-filled out class identification, and instructions for administration of the in-class questionnaire (**See Appendix 6**). Include a box of pencils. All these items should be bound by rubber bands or string to insure that they are not separated.

Arrangements should be made for delivery of these materials to instructors or program administrators. If possible, you should deliver these materials personally. If the survey is to be administered by several instructors, you may want to brief them about procedures at a staff meeting. Finally, be sure to specify arrangements for collecting the completed questionnaire.

(2) Administer Survey

Administer the classroom survey. The questionnaire should be administered at the beginning of the class period. The person administrating the survey should provide brief verbal instructions to the class of students, and stress the importance of the study. Either you or the survey administrator should check questionnaires in the classroom as they are returned by students. It is important to make sure that the students have fully completed the forms. If questionnaires are incomplete, students should be asked or helped to complete missing responses. If you fail to check returned questionnaires at the survey site, it may be necessary to phone or track students down in class later. Make sure that the number of collected responses is about the same as the number of students actively enrolled in the class. This number will be equal to the initial enrollment minus dropouts. If absenteeism is high the day of the survey, your baseline data will be distorted, and it may be necessary to survey absent students at a later date.

In some cases, special provisions will have to be made for the completion of baseline questionnaires for special education students. If students are not capable of

completing their own questionnaires, they may have to be completed by, or with the assistance of, a knowledgeable representative (*i.e.*, parent, guardian or teacher). If such procedures are necessary, clearly mark on the cover sheet that the questionnaire has been completed with assistance or by a representative.

(3) Review Forms for Accuracy and Double Counting

Go over each of the completed forms and check for errors or missing data that might be cleared up before the students leave high school. This is an important step because it will reduce your likelihood of problems in future data collection activities. If some of the completed forms have missing data, or incoherent responses, clear them up now so that they will not be a problem later.

Make sure that all the students you surveyed have agreed to participate in the follow-up data collection by signing the attached agreement form (**Appendix to be Attached at Later Date**). Use it to get the agreement of the students that you have their permission to use survey and program data about them for this study. Their signatures on the form will establish a legal basis for collecting and using personal information. The agreement establishes their right to access copies of your files on them, your right to use the information collected from the student to conduct an analysis and write reports, and your obligation to protect their individual privacy by keeping the information confidential and the analysis untraceable to individuals.

When you take your classroom surveys, there is some risk of collecting data twice from the special education students who are located in the general population classes you surveyed. You can avoid this by instructing the people who administer your surveys to ask any student who has filled out the instrument in another class to return the form before the survey begins. However, survey administrators should take precautions to insure that students are not avoiding the survey all together.

C. DEVELOP SAMPLE FROM COMPLETED BASELINE QUESTIONNAIRES

After you have collected the baseline questionnaires from all the class sites, select and set aside those baseline questionnaires that are from special education students.

(1) Plan to Take a Random Sample of General Education Students' Baseline Questionnaires

With the remaining stack of baseline questionnaires from the general education students, your first task will be to number each of the baseline questionnaires consequentively from the first to the last in the square labeled **IDSTUDNT**. Note that this activity is to be done regardless of the completeness of the baseline questionnaire.

(a) Specify Your Sample Size and Selection Interval

The first step toward selecting a sample is to specify your sample size and establish a sampling interval. Once you have set a sample size, divide that number by the number of non-special education students that completed questionnaires. The resulting number will be your sampling interval. For example, if your sample size is 200 and there is a total of 1,000 questionnaires, you will select 20 percent of your sampling frame for the sample (or every fifth student).

Remember to choose a sample size that takes into account the expected number of non-responses. It is good practice to assume that there will be at least a 50 percent loss rate in contact of the graduates over the two year period. We recommend that you decide on how large your final sample should be, and then multiply that number by at least two. The product will give you the number of completed baseline questionnaires that you must enter into the computer. Now that you should have randomly selected the completed baseline questionnaires as directed above.

(b) Randomly Select Your Starting Point

Randomly determine the starting point for your sample selection by flipping a coin for the same number of times as your sampling interval (*i.e.*, five times if your sampling interval is one in five). The number of heads will be your starting point (*e.g.*, if you get 3 heads, start your sample selection with the third questionnaire).

(c) Select a Sample

Stack your completed non-special education baseline classroom questionnaires in the order of the numbers (*e.g.*, 0001, 0002) you assigned to each questionnaire. Start with your randomly selected starting point (*e.g.*, three for three heads), and select a questionnaire to match your previously determined sampling interval (*e.g.*, every fifth questionnaire). The selected questionnaires will be your sample.

(d) Prepare Tracking Sheets and Store Questionnaires

Complete a Tracking Sheet for each questionnaire selected to be in the sample (See Appendix E). This will be a long-term record to guide your follow-up survey efforts over the next two years.

(2) Decide Whether to Select a Random Sample of Special Education Students

Depending on the size of your student population, you will have to decide whether to study a sample or census of special education students. Most schools will find that the small number of special education students merits a study of a census. However, if your special education population is large, sampling will be appropriate. In such cases,

use the sample selection procedures that have been outlined above for non-special education students.

D. COLLECT BASELINE DATA FROM SCHOOL FILES

The next step is to collect data about your sample of students from school files. This step is to be completed during the summer after you've collected baseline data via classroom surveys. This is recommended for three reasons. First, data from student files will provide official verification of whether and under what conditions the students graduated. Second, it will provide official demographic data on students (*e.g.*, age, sex race, disability status, etc.). Third, it may be the only source of information for students with severe disabilities.

It is recommended that student files be reviewed during mid or late summer for two reasons. First, review of files during the summer will generally give the school sufficient time to give each student an official termination status (*e.g.*, graduation with a regular diploma, termination with certificate, etc.). Second, the slower pace of administrative activities during the summer will make it easier for staff to pull and review student files.

Data should be transcribed from files to the **Student File Data Form** provided in this handbook (**See Appendix 2**). Develop an alphabetical list of the special education and non-special education students that you have selected (or sampled) for the follow-up interviews. Then, pull the files for these students and transcribe selected information to a Student File Data Form for each listed student.

E. ENTER BASELINE DATA INTO A COMPUTER

It is always a good idea to enter data into computer files as soon as you can. Preliminary guidelines for data storage are provide in **Chapter 4**.

After you have collected the questionnaires and checked them for completion, you can enter data directly from the questionnaires into a computer. *But don't throw the completed forms away!* It is important to protect and maintain the original questionnaires throughout the research. If your only copy is destroyed inadvertently, there will be no way to trace information when the need arises. This means that you need to keep, at the minimum, an active computer file of the names of respondents and the original completed data collection instruments for about two years after the report has been filed.

When you have entered your questionnaire responses into the computer, you will have an electronic data base that includes every surveyed student. You now have a list (sampling frame) of students to be contacted for follow-up interviews. These students will be contacted four more times. Two of the contacts will be for data collection and two will be for keeping tabs on their addresses and phone numbers during the two year period.

V. Collect Follow-up Data

There will be four follow-up contacts. The first and third are designed to collect updated information about the current address and telephone number, and the employment status of former students. The second and fourth are phone interviews entailing more detailed questions. This section contains the procedures for each of the follow-up contacts. The objective of your first contact is to update the addresses and phone numbers of the original students who filled out the baseline questionnaires.

A. MAKE YOUR FIRST FOLLOW-UP CONTACT (SIX MONTHS AFTER GRADUATION)

The first event in the follow-up activity is to collect data six months after the students have graduated from school. This data collection point is important for two reasons: (1) it will update information on changes in phone numbers and/or addresses, and (2) it will obtain information on employment status. The procedures contained in the first set of directions should be followed again during the information system update 18 months after graduation from high school.

(1) Produce mailing labels for each of the students from which you have obtained baseline data.

(2) Prepare a brief and friendly cover letter explaining the postcard survey and encouraging former students to cooperate.

(3) Prepare a return-addressed stamped postcard with a very simple form on the reverse side (**See Appendix 2**). Place a stamp on each postcard.

(4) If possible, prepare a newsletter to be sent along with the cover letter and tracking postcard. A short newsletter will increase the chances that your former students will keep in touch with you. It might also improve your final completion rate after the two year period. Try preparing a newsletter about events on the campus. Tell your readers how important it is to keep in contact with the people who send them postcards and call them for interviews. Tell your research project! Have it ready to mail out to the students whom you selected to survey about a month before you make your first follow-up contact. Plan to send out a new newsletter about a month before the second, third and fourth post-graduation follow-up surveys as well.

You might also consider giving everyone who participates in your survey a chance at winning 10K lottery tickets! You could really play this up in your newsletter. Tell them they can help you with your research and help fund education in California while getting a shot at big lottery prizes.

(5) As soon as the postcards return, log the information on the Student Tracking Forms that you created after the baseline classroom survey (**See Appendix 5**).

(6) After a month begin calling those who have not responded. It is important that you track them to places beyond the local area if you learn that they have left. This can be done either by mail or by phone. Contact those relatives or friends who are named on the initial data collection instrument. Try to find out how to contact the respondents through them. Log contacts and comments on the **Student Tracking Forms (See Appendix F)**.

(7) If you cannot contact the person after four attempts, stop your efforts for this contact stage. Enter information on the attempted contacts and comments on the **Student Tracking Form (See Appendix F)**. Do not discard the the existing information on students you *could* not contact. As long as you have some leads, they may be more accessible or cooperative during the next contact stage.

(8) Enter the information you have gathered about each student into your computer files **(See Chapter 4)**.

B. MAKE YOUR SECOND FOLLOW-UP CONTACT (ONE YEAR AFTER GRADUATION)

The second task requires you to collect follow-up data about the individual students in both special education and general students. This is your first major data collection event. It is scheduled one year after graduation. You will collect this data by telephone interviews or face-to-face. All of your general population students, and most of your special education students or their custodians, can be interviewed by phone. However, some of the special education students may require on site interviews. You will find procedures for telephone interviews without interpreters, telephone interviews with interpreters and face-to-face interviews in this section. If possible, send out a newsletter about one month before you begin interviewing.

(1) Organize Your Follow-up Surveys

Basic pre-requisites for conducting follow-up interviews include selection of respondents requiring interpreters, arrangement of office space and phones, preparation of questionnaires, organization of tracking procedures, and planning for tracking down respondents.

(a) Decide Which Students Will Require Face-to-Face Interviews or Interpreters

You will need to decide which students will require face-to-face interviews or interpreters, arrange telephone survey times, modify your questionnaires, duplicate forms and plan to track down your respondents in order to complete your preparation for the follow-up survey.

Select the special education students that cannot be directly interviewed and will require interpreters (*i.e.*, a person at home who can complete the phone interview for the graduate). A good way to develop an initial list of students requiring interpreters is to inspect the cover sheet for the **Baseline Questionnaire** used for your classroom survey **(See Appendix E)**. This cover sheet will tell you whether this questionnaire was completed by the student or an interpreter (see **RESPOND** question). You should also

consider other factors when deciding whether a student will need an interpreter. Interpreters will be needed for students who can communicate only by signing or writing. You will also need interpreters for students who have severe emotional difficulties or language barriers. If it is not feasible to conduct a follow-up telephone survey with some of your special education students, you will need to conduct face-to-face interviews. This will also be necessary when there is no phone at home, or the interpreter cannot manage the telephone for some reason, or when there is a need to have visual presentations of questions.

The steps for using the face-to-face option are as follows:

- Review the IEP forms about the student and then consult with the special education faculty member who knows the respondent the best. You need to find out if the student will need an interpreter or a face-to-face interview for the follow-up data collection events.

- Make a list of all students who will require interpreters and all students who will require face-to-face interviews.

(b) Plan and Arrange Survey Time, Space and Phones.

You should make arrangements with administrators to get the space and equipment to conduct the follow-up survey. You will need a room with at least half a dozen phones and desks. During the evening hours you might be able to use administrative office space. Make sure that there is an adequate supply of good interviewers, instructions, pencils and erasers. Plan to have an extra interviewer during these data collection activities so that interviewers can be given breaks.

(c) Finalize and Duplicate Follow-up Questionnaires

The follow-up interview form is designed to collect information about your former students' employment activities, perceived quality of life and goal achievements.

Use the **Student Follow-up Questionnaire** attached to this handbook (**See Appendix 3**). The questions are designed to collect closed-ended responses (*i.e.*, responses are limited to the choices on the interview form). You should avoid open ended questions (*i.e.*, responses are unrestricted). Such questions provide non-standard results which are frequently ambiguous and almost impossible to summarize and analyze.

The questionnaires provided with this handbook have been developed from nationally conducted research studies. They will efficiently measure the perceptions of the respondents about the topics.

At the end of the interview form there is space for four custom-designed questions. You might use this space to ask questions about special local issues. For example, you might want to ask them about their evaluation of a Project Interdependence Chapter at your school. Or you might want to ask the students about a local high school-community program. It is important to remember not to use open ended questions. They are too costly to summarize and analyze.

After you have the questionnaire in final form, duplicate enough copies for each of the students selected to be interviewed, plus fifty extra copies.

(d) Organize Tracking Procedures

Plan on using the previously prepared **Student Tracking Forms (See Appendix 5)** to help you keep track of your data collection activities over the two year period. These forms have been designed to help you keep track of the information collected on each of the respondents in the study. Use them to help organize the actual data collection efforts for each of the events, beginning with the filled out questionnaires from the baseline surveys and continuing through the final telephone interview two years after graduation. The form has enough directions for each of the data collection events.

You will need to use your **Student Tracking Forms** to prioritize and coordinate your data collection activities. These forms provide individualized reports on student ID research numbers, names, phone numbers and interview status. You can use these forms to get an overview of the progress of your sampling activity. As the project progresses, you can use these forms to generate lists of students who have not completed interviews.

You will need to use these tracking forms when you do your interviewing. It is important to record all phone call activity and outcomes on these forms, which become management tools for the data collection activity. There are spaces for recording information from four separate calls, including the outcome of each call and information about the movement of the respondent to new locations. If your former students have moved out of the local area, you will have to place long-distance calls to reach them. In cases where the respondent will only be home at certain times, you will need to schedule an appointment interview. You can use the call sheets to record this type of detailed information. Try to have the appointed callbacks set up for the next immediate interviewing session.

*Before beginning the data collection process, you should take the precaution of copying all your existing **Student Tracking Forms** and placing the originals in a safe place.* You and your interviewers will be using those tracking forms to prioritize and coordinate your data collection activities. Because several different people will be using and modifying these forms, there is a possibility that some may be misplaced. Take precautions now to safeguard against this possibility.

During the interviewer training and briefing sessions it is important to cover the procedures for coding the telephone call outcomes. This information is crucial for efficient management of the telephone calling activity. Using **Student Tracking Forms**, and the directions about how to conduct the interviews, the interviewers will have good coverage of the procedures for coding, interviewing and managing the calls they must make to complete the project.

(e) Make Plans For Tracking Down Your Respondents

Low response rates will make your survey results useless, and possibly even dangerous distortions **(See Chapter 2)**! The response rate is the percentage of people in your sample that respond to your survey. Suppose your response rate is only 50 percent, and you find that 80 percent of those who answered said they were unemployed. Maybe

most of the people you found were the ones who refused to leave home for jobs or training. If you use these results, you may overestimate the unemployment rate among your graduates.

It is important to be extremely persistent in tracking down respondents. If you need to get responses from those who are in the "LOST" box, follow the steps below until you find a lead:

- **Contact Friends or Relatives Listed on the Tracking Sheet.** Explain why the study is important and how the student was selected. If the relatives do not know, call friends that might have been listed and proceed to get the information.

- **Call the Local Social Services Agencies.** Contact local agencies that may be serving the student. They will most likely require a formal written request, and they will want to know why you need the data. Be prepared to respond with explanations. Most social services agencies do not readily give out information even to other government agencies. You will need to present a convincing case in order to get the information.

(2) Finalize Timetable, Train Staff and Make Appointments

You will need to finalize your timetable, train your staff, and make appointments with those students who require face-to-face interviews to complete this task.

(a) Finalize Timetable

Review your previous timetable (**Exhibit 3.3**) to check that you are on schedule and that your schedule still reflects your best judgment. If there have been delays future tasks are likely to take longer than originally estimated; either adjust your timetable or augment resources to expedite future tasks. You could use more interviewers to conduct more calls in a shorter period if you need to complete future tasks more quickly. This strategy will not only save you time; it will also improve your data quality by reducing variations in the period between graduation and follow-up interviews among respondents.

When you have reviewed and finalized your timetable, you can set a date for the follow-up phone survey to begin. In the meantime you should recruit and train phone interviewers so that the survey can begin promptly on the scheduled date.

(b) Select, Train and Brief the Interviewers.

If you select good interviewers, you will save yourself a lot of headaches! If they are not efficient, it will take too much time to collect data and your project costs will increase. Good interviewers are people who have pleasant manners on the telephone, who are persistent in the questioning process, who are diligent in correct form administration and who take directions easily. Avoid selecting interviewers who are popular with the students or who are friends with a lot of the former students. Avoid

selecting those who talk too much. It is best to avoid having friends interview friends since responses may not be as "frank" as they would with an anonymous caller.

When you train interviewers, focus on their need to be accurate and consistent when following the directions you give them. Get across the idea that they will be engaged in an important scientific activity; their behaviors during the actual interviewing activity will influence the results of the data collection. It is therefore incumbent on them to ask the questions exactly as they are written, to record the responses as accurately as possible, and to avoid leading the respondent in any way.

Make sure that you emphasize the need for interviewers to fill out the **Student Tracking Forms (See Appendix 5)** carefully. Accurate and timely information on the tracking sheets will lead to efficiency in the survey project. Emphasize the need to pay diligent attention to appointment calls. The **Student Tracking Forms** are critical for a high response rate.

Appoint one or two persons to be the sole face-to-face household interviewers. They can plan their data collection during the day or at times that will be convenient for the respondent.

INTERVIEWING IS HARD WORK! REWARD YOUR GOOD INTERVIEWERS WITH KIND REMARKS AND LOVING CARE!

Even experienced interviewers need practice with the questionnaire before they begin surveys. Interviewers should be given time to review the questionnaire thoroughly and discuss questions with you. At a minimum, they should also conduct mock interviews among themselves; it is highly recommended that they do a few trial interviews with former students who are not in the follow-up sample.

After you select and train your interviewers, plan to brief them on why the data is being collected, how it will be used and the importance of the study. A short review of the training topics is often important to set the stage for the briefing of the interview schedules. The review of the questionnaire should be conducted by the research manager. This person should review each of the questions and allow the interviewers to discuss the reasons for the questions, the structure of the questions and their placement.

During the briefing be sure to explain how you want your interviewers to introduce themselves when they call your former students. Their introduction should contain references to who is collecting the information and why it is being collected. The interviewers should be prepared to leave the name and office telephone number of an administrator in the district. If the respondent challenges an interviewer, the interviewer should indicate that data on individuals will be held in confidence and that accurate statements are important to future students. All reports will aggregate information; consequently, no individual will be identified in the reports. If the former student continues to challenge you indicate to the respondent that he/she might call the listed administrator to ensure that this is a legitimate interview. The likelihood of this occurring is very low since you prepared them for the follow-up contacts when you conducted the baseline survey.

After the briefing is finished, you should plan to simulate the interviewing process. You can pair off individuals to act out interviewing each other. This is a very useful procedure for understanding the real interviewing process without contaminating the sample frame. Questions raised in this simulation can be brought back to the whole group, and problems can then be clarified.

(c) Make Appointments for Your Face-to-Face Interviews

You will need to have the designated interviewers make specific appointments with those students who require face-to-face interviews at their homes. Face-to-face interviewing in the home is the most expensive form of data collection discussed in this handbook. It is very important that this most expensive element of the datacollection be conducted in an efficient manner; if it is not, then other elements of the research will suffer from a lack of resources.

(3) Data Collection

You are now ready to start the actual data collection. As suggested earlier, these activities will be divided into interviews directly with students, interviews with students requiring interpreters, and face-to-face interviews.

(a) Conduct Your Telephone Interviews Without Interpreters

The procedures for conducting phone interviews are reasonably straightforward. Key steps to keep in mind are listed below:

- Be sure to bring enough materials, including pencils, call sheets, interview schedules and interviewer directions sheets.
- Begin interviewing. Listen to each worker's first interview to make certain that he or she understands how to follow your directions.
- Set-up boxes to orchestrate and organize the survey process. You will need an "in" box for tracking forms that have not been used; an "out" box for tracking forms and questionnaires that have been completed; a "refused" box, a "call back" box and a "lost" box.
- Make sure that your interviewers have a steady stream of respondents to call. Keep the tracking forms for the students who are to be called in the in the "in" box. Let your interviewers know that they are free to make notes on these sheets as the need arises.
- Have your interviewers start with the tracking forms of students that have not yet been called, and go through progressive cycles of phoning respondents. If contact is made and an interview completed, the interviewer should mark the tracking form as "completed," staple the sheet to the completed questionnaire, and place the questionnaire in the

"Out" box for completed interviews. *Make sure that you keep this box in a very safe place.*

- Mark the tracking forms for unsuccessful contacts, so that they can be dealt with in the future. If the respondent refuses outright, mark the tracking sheet "Refused," and toss it in the box labeled "Refusals."

- If you cannot locate a student, label the tracking form "Lost," and throw it in a box labeled "Lost."

- If efforts to contact the respondent have been indeterminate (*i.e.*, not home, no answers, agreed to be interviewed later, etc.), then you should mark the tracking form appropriately and place it in the "Call Back" box so that additional efforts can be made.

- If your interviewers have made explicit arrangements to phone a respondent at a specific date and time, set aside these tracking forms at the interviewers' station. Make a note of this arrangement, and make sure that an interviewer calls back at the agreed upon time.

- When all the untried tracking sheets have been used, you should move the sheets from the "Call Back" box to the first "In" box and start this process again. This process should be repeated three times, or until you have a response rate of at least 70 percent.

- Check each questionnaire that your interviewers turn in for accuracy and completeness.

(b) Conduct Telephone Interviews With Interpreters

Use the same procedures described above. However, it is critical that you heed the following guideline for those respondents who require interpreters.

REMEMBER THAT WHENEVER YOU USE AN INTERPRETER, THE INTERVIEWER SHOULD COUNSEL THE INTERPRETER TO IGNORE HIS OR HER OWN PERSONAL PERSPECTIVE IN THE RESPONSES. ATTEMPT TO OBTAIN THE INFORMATION VERBATIM FROM THE RESPONDENT AND USE THE INTERPRETER AS A CONDUIT.

It is vital to discuss with the interpreter the need for scientific data collection procedures. It is quite possible that the interpretation of the responses from the disabled person are being unconsciously skewed in one way or another by the interpreter. We realize this may sound harsh, but the objective is to get the responses of the respondent and not the interpreter!

(c) Conduct Face-to-Face Interviews

Review the locations of the interviews to be conducted and identify important cross streets. It is important to plan your route so that you can get to your interviews with the minimum amount of travel time. Carry a map with you. *AAA* (Automobile Association of America) maps are excellent for this type of work. Make sure that you are on time for the interview!

It is important to make sure that you have reviewed the materials used for the interviews. These materials include the directions for the interviewers, the interview forms, directions for getting to the household, and the respondent's phone number if there is one. These materials need to be kept together in a "kit" form.

Some modifications in procedures will be necessary. The pacing of the questions may have to be slowed down. There may have to be alterations in the wording of some of the questions in order to make the questions relevant to the person being interviewed, and there may have to be repetition of the questions being asked. However, to the extent possible, you should collect the data in much the same way that you collect the data for the rest of the interviews.

Face-to-face interviews with severely disabled respondents may require special skills, longer periods of time for the interview and special questionnaire procedures. It is important that these changes be noted on the interview form so that they are more effectively managed. If there are changes in wording, note them on the interview form at the appropriate place on the form. Try to make the respondent feel at ease. When there is an interpreter present, try to make him or her feel comfortable too.

(4) Edit Collected Data

The data collection instruments have self coding systems on the forms to facilitate computer use. However, it is normal professional practice to review the completed forms before they are encoded into the computer for analysis. Make sure that you do this as soon after the completion of data collection as possible. If some data are missing, callbacks can be conducted to gather needed information. If some respondents were never contacted, then they can be tracked down so that they can be included in the study.

C. MAKE YOUR THIRD FOLLOW-UP CONTACT (EIGHTEEN MONTHS AFTER GRADUATION)

At this point in the research project you have made two follow-up contacts. Using the information from the second follow-up contact, it will be necessary to update the phone, address and any other relevant information about how to contact the respondents in the future. Recall that this is important because it will improve the efficiency of the research effort and it will ensure that the data finally collected are representative of the original graduating group of students. Be sure to record data collected at this stage on the Student Tracking Form (See Appendix 5).

The procedures will be almost identical to those which were described for the first follow-up contact. You will mail each of your respondents a self-addressed and stamped postcard to find out if any of them have new addresses. Since this mail-out occurs about one and a half years after they have graduated, you will find increased difficulties in locating the respondents. You will need to match that challenge with even greater efforts to contact the selected respondents!

Refer to the prior section concerning the six month postcard contact procedures; if you have used these procedures carefully, you should have a good final sample panel from which you will take your final data collection. Your final response rates will be quite good if you have made significant efforts to reduce your respondent loss rate.

D. PLAN AND MAKE YOUR FOURTH FOLLOW-UP CONTACT (TWO YEARS AFTER GRADUATION)

You will make your final contact with the panel study respondents about two years after graduation. The steps are the same as those presented for the second follow-up contact. You will also need to repeat some of your planning steps as well since it has been two years since you began collecting the baseline study. Then you can repeat the steps for the second (twelve month) stage.

VI. Prepare Data for Entry Into A Computer

The questionnaire and interview forms data collection sheets are already coded for entry into the computer. The coding scheme is established and printed into the question text marking spaces. Incorrect coding will turn your research into garbage! These questionnaires and interview forms have been designed to reduce coding error by making the directions easy to follow.

You should carefully review each of the data forms for logic, completeness and accuracy. It is important that consistency be maintained in the coding process. Do not change coding patterns in the middle of a data event!

VII. Use Computers for Data Storage and Analysis

There are many options for storing and analyzing your data with a computer. The next chapter will provide provisional guidelines for this final stage.

Chapter 4
USING COMPUTERS TO ANALYZE FOLLOW-UP DATA

This chapter provides provisional instructions for storing data in computer files and a prospectus on options that might be developed for analyzing the data collected with this handbook.

Entering Data Into Computer Files

This section provides handbook users with procedures for entering collected data into a variety of computers, using a variety of software packages. Since software and analytical goals have not yet been specified, these procedures are generic. For the most part, they should be applicable to most mainframe and microcomputer software (*e.g.*, *SPSS, SAS, dBASEIII, SYSTAT,* etc.). Under some circumstances, you may wish to use a standard data base manager such as dBASEIII to enter data, then transfer the entered data to a mainframe or microcomputer statistical package for analysis.

CREATING A DATA STRUCTURE

Before data can be entered into computer files, the structure of the data files must be defined. Under most conditions, this entails four steps:

(1) **Give the Data Base a Name.** Each data base that you create must be given a name. For the most part, data base names almost always must be no more than eight characters long. To illustrate, the data file that holds the data for the classroom baseline survey might be named "CLASBASE." The number of data bases that you create will depend on the constraints of the software you are using, and your analytical goals. Ultimately, this is not critically important as long as there are common identifying fields in each data file (*e.g.*, unique student identification numbers, social security numbers, etc.). We recommend that you develop a data file for each data collection form or questionnaire that accompanies this handbook. These forms and questionnaires already have at least one common identification field so that files can be merged to meet your analytical needs.

(2) **Assignment of Code names for Each Data Field (also called variables or data elements).** Under most circumstances, each question on the data form and questionnaire represents a data field. To facilitate this step, each data element on the forms and questionnaires accompanying this handbook has been assigned a code name.

(3) **Definition of the Character Type for Each Field.** Once fields have been named, it is also necessary to specify the type of characters to be entered. The data forms and questionnaires accompanying this handbook must be assigned one of two character types. The first is the "text" or "character" type, which is used for fields such as names, addresses, cities and numeric fields that do not fit into standard mathematical formats (*e.g.*, telephone numbers). The second is the "numeric" type which is used for numbers which are to be added, divided or otherwise computed during your analysis.

(4) **Specification of Field Length.** Under most circumstances, it will also be necessary to define the length of each field. When defining length, it is extremely important to allow enough spaces or characters to accommodate the largest value or length that you will enter. For example, if you define a field for the city of student's residence as eight characters long, you will have difficulty dealing with a name like San Francisco.

Appendix 7 provides data structures to match the data collection forms and questionnaires included in this handbook **(See Appendices 1 through 4)**. Handbook users may wish to alter these structures or substitute new structures to meet specific needs.

ENTERING, REVIEWING AND EDITING DATA

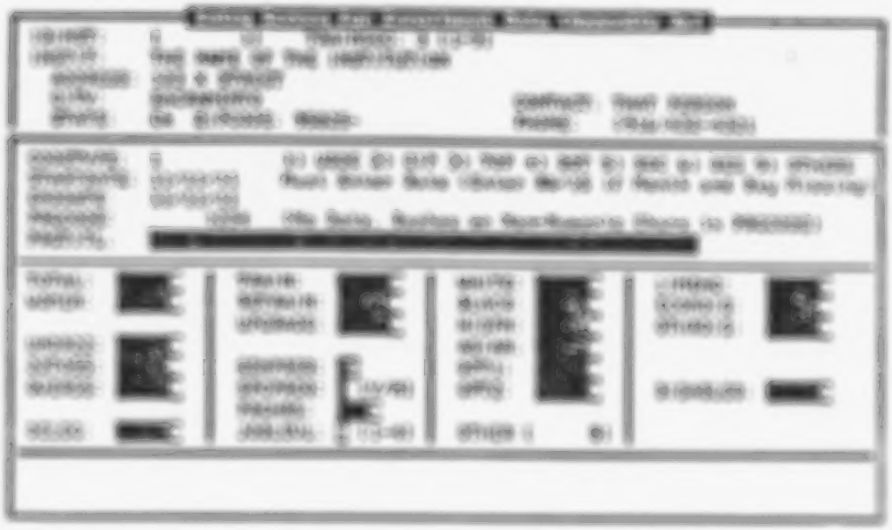
The specific data entry process will vary according to the software that you use. However, most statistical and data management software have common data entry features. While screen layout varies, most software programs present users with the name of each pre-specified field and a blank space to enter data for that field. When the data is entered for a specific field, the user can progress to the next field until all fields have been either entered or skipped. Data is entered record by record. A record represents one completed data form or questionnaire, which in the case of this handbook represents a specific student. After you have entered data for all the fields in your first record, the software will move on to the second record, so you can repeat the process for the next form or questionnaire **(See Exhibit 4.1)**.

Completed data forms and questionnaires should be reviewed for clarity, accuracy and completeness before data entry, and spot checks should be made to compare the accuracy of the entered data to the source questionnaire. This can be done in several ways. Most software has the capacity to review and edit selected records. Another option is to produce a printed listing of your data, then review it for consistency and conformity to your source forms. Editing should be done when appropriate.

Analyzing Follow-up Data

As in the case of data entry, analysis will be determined by the capacities of y software and your analytical goals. This section provides a few interim guidelines for conducting analysis, and suggests data entry and analytical options that might be developed in the future to accompany this handbook.

Exhibit 6.1
SAMPLE DATA ENTRY SCREEN



INTERIM OPTIONS FOR ANALYSIS

Interim options for analysis entail use of existing software packages to conduct analysis. As noted earlier, there are a number of mainframe and microcomputer packages that are fully suitable for any range of analysis that you may wish to conduct. These packages will allow you to conduct basic descriptive analysis (e.g., frequencies of distribution, means, etc.), simple bivariate analysis (e.g., cross tabulations, bivariate correlations, etc.), or more complicated multivariate analysis (e.g., multiple regression, factor analysis, etc.). For the time being, handbook users must gain access to and acquaint themselves with such packages to analyze their data.

FUTURE OPTIONS FOR ANALYSIS

Pending review by potential users and depending on priorities for further development of this handbook, it may be desirable to develop a number of support resources to facilitate the entry and analysis of follow-up data. In their ideal form, these support resources would have three components:

(5) Microcomputer Software for Local Data Entry and Report Generation

Public domain software might be developed for use on commonly available microcomputers (*e.g.*, IBM Compatible and Apple Macintosh Computers). This software would have menu-driven programs to provide "user friendly" options for entering data, reviewing and editing data, and producing a variety of standard reports from the data. Utility programs might also be added to facilitate transfer of this data to other software programs for more advanced and customized analysis at the local level. These software packages would be designed to match the data collection forms and questionnaires that accompany this handbook.[1] This software would provide local handbook users with the resources and flexibility to easily enter data and produce reports to meet their needs.

(6) Centralized Units to Provide Technical Assistance and Analytical Services

It may also be cost effective to establish one or more centralized units to provide school districts with technical assistance and analytical services. Staff with expertise in the above-noted micro computer software might be maintained to assist local users. Services might also be provided for conducting advanced and customized analysis of data collected by local school districts. The results of this analysis would be used to meet special local needs and provide data for policy development at the state level.

(7) Resources for State and Local Data Transfers

If the two resources noted above were made available, efficient and easy to use procedures for transferring computer data files between state and local levels, and where desirable, between local offices (*e.g.*, schools within districts) could be developed. Such procedures would be relatively easy and inexpensive to develop, and they would open the potential for greatly increasing the return on data collection activities.

---

[1] Software recently developed in the California Occupational Information Coordinating Committee provides an example for the type of resource that might be developed (See *CHOICE Survey for Software Manuals*, Career Study, Part III, Management and Research Associates, Sacramento, August 31, 1987).

LIST OF APPENDICES

1. Baseline Questionnaire for Follow-up Study of High School Graduates
2. Baseline Data Forms for School Records
3. Follow-up Postcards for Follow-up Study of High School Graduates
4. Follow-up Interview Questionnaire for Follow-up Study of High School Graduates
5. Follow-up Survey Tracking Sheet
6. Instructions for Administering Baseline Classroom Survey
7. Sample Data Structures (Available at Later Date)
8. List of Unique School Identification Numbers (Available on Request)

Appendix 1

High School Graduate Follow-up Survey Project

BASELINE QUESTIONNAIRE FOR THE FOLLOW-UP STUDY OF HIGH SCHOOL GRADUATES

The person administering the survey should fill in the following information prior to distributing the questionnaire to students:

IDINST Institutional Identification Number (See Appendix): [ ][ ][ ][ ][ ][ ][ ]

Student Name:

LASTNAME Lastname: _____ Firstname: _____ Initial: ___
FIRSTNAME
INITIAL

IDSTUDNT Student Survey Identification Number: [ ][ ][ ][ ][ ]

SSANMBR Student's Social Security Number (If available): [ ][ ][ ]-[ ][ ]-[ ][ ][ ][ ]

RESPOND RESPONDENT:

( ) Questionnaire Completed by Student

( ) Questionnaire Completed by Student
with Assistance: _____

( ) Questionnaire Completed by Student
Representative: _____

NOTE: *Variable names (e.g., IDINST, FIRSTNAME, etc.) have been entered to provide linkage to data processing procedures outlined in Chapter 4 of the Handbook. These variable names may be deleted from the questionnaires prior to data collection.*

LOCAL FOLLOW-UP STUDY OF THE GRADUATES OF THE CLASS OF 19 __

Hi:

We need your help to get accurate information about yourself, and the names of people who can help us to keep in contact with you over the next two years. Your answers to this questionnaire will help us to better understand what happens to students who graduate from your high school. This information will be used to make improvements in your school system.

Please help us keep in contact over the next two years. To do this, we need information about persons who will know where you are living. Please list the name, the address and phone number of two persons (either relatives, other than your parents, or close family friends):

FIRST CONTACT PERSON (Please do not list your parents or guardians):

CONTACT1 Name: _____
First Name Last Name

ADDRESS1 Address: _____
CITY1
STATE1 City: _____ State: _____ Zip Code: _____
ZIPCODE1
PHONE1 Phone: ( ) _____ - _____

SECOND CONTACT PERSON (Please do not list your parents or guardians):

CONTACT2 Name: _____
First Name Last Name

ADDRESS2 Address: _____
CITY2
STATE2 City: _____ State: _____ Zip Code: _____
ZIPCODE2
PHONE2 Phone: ( ) _____ - _____

THIRD CONTACT PERSON (Please do not list your parents or guardians):

CONTACT3 Name: _____
First Name Last Name

ADDRESS3 Address: _____
CITY3
STATE3 City: _____ State: _____ Zip Code: _____
ZIPCODE3
PHONE3 Phone: ( ) _____ - _____

Now we want you to answer some questions about your high school experiences. The first question is. Your answers will be kept fully confidential:

GRADDAT (1) In what month and year will you graduate from, or permanently leave, high school?

Month: _____ 19_____ (Year)

EMPLOY1 (2) Which one of the following best describes your current employment situation? Are you (mark one box)?

[ ] Employed (Continue to Question 3)
[ ] Looking for work (Skip to Question 10)
[ ] Not working and not looking for work (Skip to Question 10)

(3) What is your job title? (write in)

_____

SOCCODE1
SOCTITL1 (4) In the space provided please write in your job duties.

_____

_____

EMPLYR1 (5) What is the name of the company or organization that you work for (write in)?

_____

PAY1 (6) How much money do you make hourly for the job you listed above (write the amount in the spaces provided)?

$[ ][ ].[ ][ ]

JOBHRS1 (7) Over the past month, on the average, how many hours per week have you worked in a paid job (write in the amount)?

[ ][ ] Average Hours Worked Per Week

JOBSRCE1 (8) What was the main way you got your current job (Mark 1 Box)?

[ ] Found Job Yourself, with Little or No Help
[ ] Found Job with Help from Family or Friend
[ ] Found Job with Reference from School or Agency (for example school counselor, job training program placement office, etc.)
[ ] Other: _____

EDVALUE1 (9) How much of what you learned at school is used on your job (Mark 1 Box)?

[ ] Very Little
[ ] Some
[ ] Great Deal

We'd like to know what subjects you studied when you were in high school. I'll read you a list of subjects. After I read each subject, I want you to tell me whether or not you had courses in it.

			Yes:	No:	Don't Know:
BENG1	(10)	Courses in Basic English (Writing, Grammar, Reading)	[ ]	[ ]	[ ]
AENG1	(11)	Courses in Essay Composition and Literature	[ ]	[ ]	[ ]
BMATH1	(12)	Courses in Basic Mathematics (Adding, Subtracting, Division, Percentages, Multiplication, etc.)	[ ]	[ ]	[ ]
AMATH1	(13)	Courses in Algebra, Geography or Trigonometry	[ ]	[ ]	[ ]
SCIENC1	(14)	Courses in Science (Chemistry, Biology, Physics, General Science)	[ ]	[ ]	[ ]
WKEXP1	(15)	Courses in Work Experience or Work Training Programs	[ ]	[ ]	[ ]
JOBSCH1	(16)	Courses in Searching for a Job or in Preparation for Job Skills	[ ]	[ ]	[ ]
COMUSE1	(17)	Courses in How to Use Community Facilities	[ ]	[ ]	[ ]
SLFCAR1	(18)	Courses in Domestic Self Care Skills	[ ]	[ ]	[ ]
HMGMT1	(19)	Courses in Home Management Skills	[ ]	[ ]	[ ]
BUSWK1	(20)	Courses in Business or Office Work	[ ]	[ ]	[ ]
INDART1	(21)	Courses in Industrial or Technical Trades	[ ]	[ ]	[ ]
AGRIC1	(22)	Courses in Agriculture or Horticulture	[ ]	[ ]	[ ]
RETAIL1	(23)	Courses in Retailing or Merchandising	[ ]	[ ]	[ ]
HMECON1	(24)	Courses in Home Economics	[ ]	[ ]	[ ]

Now we would like to know how influential some persons are in your life. Please mark one box on each line below of persons thought to be influential to graduating high school students.

How much has each of the following persons influenced your plans for after high school? Have they influenced you very little, some or a great deal?

			Very Little	Some	Great Deal
PARENT1	(25)	Parents (or Guardians)	[ ]	[ ]	[ ]
RELATIV1	(26)	Relative Other than your Parents (or Guardian) . .	[ ]	[ ]	[ ]
COUNSLR1	(27)	Guidance Counselor	[ ]	[ ]	[ ]
TEACHR1	(28)	Teacher (other than a guidance counselor)	[ ]	[ ]	[ ]
PRINCPL1	(29)	School Principal or Assistant Principal	[ ]	[ ]	[ ]
CLERGY1	(30)	Clergy (minister, priest, rabbi, etc.)	[ ]	[ ]	[ ]
JOBOFF1	(31)	State Employment Service Officer	[ ]	[ ]	[ ]
ADULT1	(32)	Other Adult (not mentioned above)	[ ]	[ ]	[ ]
FRIEND1	(33)	Friends Your Own Age	[ ]	[ ]	[ ]
YOU1	(34)	Yourself	[ ]	[ ]	[ ]

Now we want to know what you hope to do over the next two years. Mark ONE category which best describes your plans for the next two years.

GOAL1 (35) What do you plan to do the next two years?

[ ] Go to work full-time
[ ] Enter military service
[ ] Become a full-time homemaker
[ ] Go to vocational, technical, business or trade school
[ ] Go to college
[ ] Enter an apprenticeship or on-the-job training program
[ ] Other: _____
[ ] I don't know

Now we want to ask you some questions about life in general. There are no right or wrong answers to these questions. Please mark the answers that you believe are the closest to the truth.

Please mark the answer that most accurately describes how frequently you experience the following statements. The categories are ***never, rarely, sometimes, often, always.***

			Never	Rarely	Some-times	Often	Always
HOMESAT	(36)	I feel good about my present living arrangements; that is, I feel good about where I live, who I live with, and the accomodations where I live	[ ]	[ ]	[ ]	[ ]	[ ]
EDUCSAT	(37)	I feel satisfied with the education and training I have received so far in school	[ ]	[ ]	[ ]	[ ]	[ ]
PHYSSAT	(38)	In general, I am satisfied with my physical health	[ ]	[ ]	[ ]	[ ]	[ ]
MENTSAT	(39)	In general, I am satisfied with my mental health	[ ]	[ ]	[ ]	[ ]	[ ]
SOCPART	(40)	I participate in clubs or other organization in my community	[ ]	[ ]	[ ]	[ ]	[ ]
MOBILITY	(41)	I am able to get out and do things outside of my home when I want	[ ]	[ ]	[ ]	[ ]	[ ]
SLFCTRL	(42)	I am satisfied with my ability to choose and organize my own activities	[ ]	[ ]	[ ]	[ ]	[ ]
DECISSAT	(43)	Generally, the decisions I have made about my life have turned out well	[ ]	[ ]	[ ]	[ ]	[ ]
LEISURE	(44)	I am satisfied with the leisure and recreational opportunities that I have	[ ]	[ ]	[ ]	[ ]	[ ]
FRIENDS	(44)	I am satisfied with the friends I have	[ ]	[ ]	[ ]	[ ]	[ ]
INTIMATE	(45)	There is someone close to me with whom I can share my most important thoughts and feelings	[ ]	[ ]	[ ]	[ ]	[ ]
LIFESAT	(46)	In general, I am happy with the way life is going	[ ]	[ ]	[ ]	[ ]	[ ]

Thank you for helping us with this study. We will be contacting you in about six months, and we hope that you will help us keep in touch with you. Your interest and cooperation will be valuable for the high school and for students coming here in future years.

Appendix 2

High School Graduate Follow-up Survey Project

BASELINE DATA FORM FOR SCHOOL RECORDS

Most of the information in this record system can be filled out by the research project director. However, in those cases where the information is not available from student records or the Baseline Questionnaire, the student or an aide must be interviewed for the necessary information.

COLLCTR Name of Data Collector: _____

TITLE Title of Data Collector: _____

SCHOOL School Employing Data Collector: _____

CPHONE Phone of Data Collector: ( ) _____ - _____

Directions for Marking

Answer the questions by filling in the correct boxes. Actual coding for computer entry will be done by a clerical person. *Note that Variable names (e.g., **IDINST, FRSTNAME**, etc.) have been entered to provide linkage to data processing procedures outlined in Chapter 4 of the Handbook. These variable names may be deleted from the questionnaires prior to data collection.*

IDINST Institutional Identification Number **(See Appendix)**: [ ][ ][ ][ ][ ][ ][ ]

Student Name:

LASTNAME
FRSTNAME **Lastname:** _____ **Firstname:** _____ **Initial:** ___
INITIAL

IDSTUDNT Student Survey Identification Number: [ ][ ][ ][ ][ ]

SSANMBR Student's Social Security Number (if available):

[ ][ ][ ]- [ ][ ]- [ ][ ][ ][ ]

PARENTS OR GUARDIANS:

PARENT Name: _____
First Name Last Name

PADDRESS Address: _____
PCITY
PSTATE City: _____ State: _____ Zip Code: _____
PZIPCODE
PPHONE Phone: ( ) _____ - _____

List the name, address and phone number of two follow-up contact persons that are listed in the students school records. *These names are <u>not</u> necessarily the same names listed by the student in the baseline classroom survey.*

CONTACT PERSON (Please do not list your parents or guardians):

CONTACT4 Name: _____
First Name Last Name

ADDRESS4 Address: _____
CITY4
STATE2 City: _____ State: _____ Zip Code: _____
ZIPCODE4
PHONE4 Phone: ( ) _____ - _____

SECOND CONTACT PERSON (Please do not list your parents or guardians):

CONTACT5 Name: _____
First Name Last Name

ADDRESS5 Address: _____
CITY5
STATE5 City: _____ State: _____ Zip Code: _____
ZIPCODE5
PHONE5 Phone: ( ) _____ - _____

SCHOOL Student's School: _____

SCHLADR Address of Student's School: _____

SCHLCITY City of Student's School: _____

SCHLZIP Zip Code of Student's School: [ ][ ][ ][ ][ ] - [ ][ ][ ][ ]

LIVEWITH (1) Who is student currently living with **(mark one box)**?

[ ] Parent, Guardian or Relative
[ ] Self or Spouse
[ ] Care Provider (*e.g.*, Group Home, Licensed Care Institutions)
[ ] Other: _____
[ ] Unknown

SEX (2) Sex of Student **(mark one box)**:

[ ] Male
[ ] Female
[ ] Unknown

RACE (3) Race of Student **(mark one box)**:

[ ] American Indian
[ ] Asian
[ ] Pacific Islander
[ ] Filipino
[ ] Hispanic
[ ] Black
[ ] White
[ ] Unknown

STRTDATE (4) Year Student Entered Secondary School:

19 _____ Year

CERTIF (5) What type of certificate is the student expected to obtain?

[ ] High School Diploma

[ ] Differential Standards Diploma

[ ] Certificate of Completion

[ ] Did Not Complete Program

[ ] Other: _____

[ ] Unknown

PRGTYPE (6) Which one of the following best describes the most recent high school program in which the student was enrolled **(mark one box)**?

[ ] Other General Education **(Do Not Progress to Further Questions)**

[ ] Academic or College Preparatory **(Do Not Progress to Further Questions)**

[ ] Vocational or Technical **(Do Not Progress to Further Questions)**

[ ] Special Education Program (Continue to Further Questions)

[ ] Unknown

THE FOLLOWING QUESTIONS ARE ONLY FOR SPECIAL EDUCATION STUDENTS

PRIMRSRC (7) Which **ONE** of the following resources has been the primary program for this student during the past four years of high school **(mark one box)**?

* [ ] Resource Specialist Program (RSP)

* [ ] Special Day Class (SDC)

* [ ] State School Program (Special School)

[ ] Developmental Disability Program

* [ ] Residential School (Non-Public School Placement)

* [ ] Home and Hospital Teaching

* [ ] Designated Instructional Service (DIS)

[ ] Unknown

* Official Instructional Settings

DISTYPE (8) Indicate which **ONE** of the following categories best describes the disability of this student **(mark one box)**:

[ ] Physically Handicapped (PH)

[ ] Communicatively Handicapped (CH)

[ ] Severely Handicapped (SH)

[ ] Learning Handicapped (LH

[ ] Unknown

Questions for Special Education Students, *Continued:*

INTRPNED (9) Will the disability marked in prior question require that follow-up interviews be conducted with the use of an interpreter or that the follow-up interview be conducted face-to-face **(mark one box)**?

[ ] No **(Do Not Answer Further Questions)**

[ ] Yes, Over Phone with Interpreter

[ ] Yes, Face-to-Face with Interpreter

[ ] Yes, Face-to-Face without Interpreter

[ ] Unknown

Is the name and address of the interpreter known?

INTRPNM Name: _____

INTRPAD Address: _____

INTRPST City: _____

INTRPCTY State: _____

INTRPZIP Zipcode: _____

INTRPPHN Phone: ( ) _____ - _____

Appendix 3

High School Graduate Follow-up Survey Project

FOLLOW-UP POSTCARDS FOR THE FOLLOW-UP STUDY OF HIGH SCHOOL GRADUATES

Appendix 4

High School Graduate Follow-up Survey Project

FOLLOW-UP INTERVIEW QUESTIONNAIRE FOR THE FOLLOW-UP STUDY OF HIGH SCHOOL GRADUATES

[illegible] Name of Data Collector: _____

[illegible] Phone of Data Collector: ( ) _____ - _____

Directions for Marking

Answer the questions by filling in the correct boxes. Actual coding for computer entry will be done by a clerical person. Note that variable names (e.g., [illegible]) have been inserted to provide linkage to data processing procedures outlined in Chapter 4 of the Handbook. These variable names may be deleted from the questionnaire prior to data collection.

The person administering the survey should fill in the following information prior to initiating the follow-up interview:

[illegible] Institutional Identification Number (See Appendix): [illegible]

Student Name:

[illegible] Lastname: _____ Firstname: _____ Initial: _

[illegible] Student Survey Identification Number: [illegible]

[illegible] Student's Social Security Number (If available): [illegible]

[illegible]:

[ ] Questionnaire Completed by Student

[ ] Questionnaire Completed by Student with Assistance: _____

[ ] Questionnaire Completed by Student Representative: _____

LOCAL FOLLOW-UP STUDY OF THE GRADUATES OF THE CLASS OF 19__:

Hello, I want to speak to [fill in student name]. My name is (Interviewer's Name) and I'm calling to ask you some questions about how life has been this past year, since you left _____ high school. As you may recall, you filled out a questionnaire during the Spring of_____. Now I want to up date some of that information. First,

EMPLOY3 (1) Which one of the following statements best describes your current employment situation? Are you

[ ] Employed (Continue to Next Questions)

[ ] In the Military (Skip to Question (7)

[ ] Not Employed, but Looking for Job (Skip to Question (7)

[ ] Not Employed, and Not Looking for a Job (Homemaker, Health Problems, etc.) (Skip to Question (7)

[ ] Not Employed, and Not Looking for a Job (Further Education or Training) (Skip to Question (7)

[ ] No Response

EMPLOYED QUESTIONS 2 - 6 IF RESPONDENT IS EMPLOYED
(SKIP TO QUESTION 6.0 IF NOT EMPLOYED)

(2) What is your job title?

SOCCODE2 _____

SOCTITLE _____

(3) What are your main duties on this job?

_____

_____

PAY2 (4) How much money do you make hourly on this job? (Interviewer Write the Answer in the Boxes)

$[ ][ ].[ ][ ]

JOBHRS2 (5) How many hours a week do you work for pay?

[ ][ ] Average Hours Worked Per Week

We would like to know what kinds of benefits employees receive these days. I will name a type of benefit and I would like you to tell me if you receive that benefit on the job. Answer yes if you do and no if you do not receive it.

			Yes	No	Don't Know
[illegible]	(6)	The first benefit is Health Insurance	[ ]	[ ]	[ ]
[illegible]	(7)	How about Sick Leave?	[ ]	[ ]	[ ]
[illegible]	(8)	How about Paid Vacations?	[ ]	[ ]	[ ]

[illegible] (9) How long have you been working in this job?

[ ] [ ] [ ] Weeks (0 if less than 1 week)
[ ] [ ] [ ] Months
[ ] [ ] [ ] Years
[ ] Unknown

[illegible] (10) How long did it take you to find the first job after leaving high school?

[ ] Current Job Continued from Work during High School
[ ] [ ] [ ] Weeks (0 if less than 1 week)
[ ] [ ] [ ] Months
[ ] [ ] [ ] Years
[ ] Unknown

[illegible] (11) How many different jobs have you had since leaving high school?

[ ] None
[ ] 1 Job
[ ] 2 Jobs
[ ] 3 Jobs
[ ] 4 Jobs
[ ] 5 Jobs
[ ] Over 5 Jobs
[ ] Unknown

WKTRANS (12) How do you usually get to work? (Mark Only One Box)

[ ] Walk
[ ] Drive Myself (Automobile)
[ ] Relative or Friend Drives Me
[ ] Use Bus or Public Transportation
[ ] Taxi
[ ] Facility Bus (Bus Serive, Dial-a-Ride, Etc.)
[ ] Other: _____

Do any of the following statements describe your current job?

			Not at All	Some	A Lot	Don't Know
EDVAL3	(13)	My high school studies were related to my current job	[ ]	[ ]	[ ]	[ ]
CARVAL3	(14)	This job will lead to work I'll make my career	[ ]	[ ]	[ ]	[ ]
PEOPLE3	(15)	My job involves working with people I like to work with	[ ]	[ ]	[ ]	[ ]
JOBFUN3	(16)	On the whole I enjoy my work	[ ]	[ ]	[ ]	[ ]

I'm going to list a number of reasons that people don't work. I'd like you to tell me whether each reason is correct or incorrect for you.

The first reason is that some people say they can't find work because they lack work skills. How about you? Is that correct in your situation or not correct?

			Not at All	Some	A Lot	Don't Know
NOSKIL3	(17)	Lack of Work Skills?	[ ]	[ ]	[ ]	[ ]
NOTRAN3	(18)	How about Lack of Transportation to Work?	[ ]	[ ]	[ ]	[ ]
BENLOSS3	(19)	How about loss of Social Security (SSI) or Public Income Maintenance Benefits?	[ ]	[ ]	[ ]	[ ]
HLPROB3	(20)	How about Health Problems on the Job?		[ ]	[ ]	[ ] [ ]
NOINT3	(21)	How about Not Wanting a Job?	[ ]	[ ]	[ ]	[ ]
EDREQ3	(22)	How about Continuing Education or Training?	[ ]	[ ]	[ ]	[ ]

MARITAL3 (23) What is your marital status? Are you:

[ ] Single, Never Married (Skip to Question 25)

[ ] Single, Divorced, Separated or Widowed (Skip to Question 25)

[ ] Married (or Living with Someone)

[ ] Unknown

SPSDWK3 (24) Is your spouse working?

[ ] Unmarried

[ ] Yes

[ ] No

[ ] Unknown

NOCHILD3 (25) How many children do you have?

[ ] No Children

[ ] 1 Child

[ ] 2 Children

[ ] 3 Children

[ ] Over 3 Children

[ ] Unknown

FAMINC3 (26) Roughly, how much income do you (or you and your spouse) expect to earn this year?

$[ ][ ][ ].[ ][ ][ ]

We'd like to know what subjects you studied when you were in high school. I'll read you a list of subjects. After I read each subject, I want you to tell me whether or not you had courses in it.

			Yes	No	Don't Know
BENG3	(27)	Courses in Basic English (Writing, Grammar, Reading)	[ ]	[ ]	[ ]
AENG3	(28)	Courses in Essay Composition and Literature	[ ]	[ ]	[ ]
BMATH3	(29)	Courses in Basic Mathematics (Adding, Subtracting, Division, Percentages, Multiplication, etc.)	[ ]	[ ]	[ ]
AMATH3	(30)	Courses in Algebra, Geography or Trigonometry	[ ]	[ ]	[ ]
SCIENC3	(31)	Courses in Science (Chemistry, Biology, Physics, General Science)	[ ]	[ ]	[ ]
WKEXP3	(32)	Courses in Work Experience or Work Training Programs	[ ]	[ ]	[ ]
JOBSCH3	(33)	Courses in Searching for a Job or in Preparation for Job Skills	[ ]	[ ]	[ ]
COMUSE3	(34)	Courses in How to Use Community Facilities	[ ]	[ ]	[ ]
SLFCAR3	(35)	Courses in Domestic Self Care Skills	[ ]	[ ]	[ ]
HMGMT3	(36)	Courses in Home Management Skills	[ ]	[ ]	[ ]
BUSWK3	(37)	Courses in Business or Office Work	[ ]	[ ]	[ ]
INDART3	(38)	Courses in Industrial or Technical Trades	[ ]	[ ]	[ ]
AGRIC3	(39)	Courses in Agriculture or Horticulture	[ ]	[ ]	[ ]
RETAIL3	(40)	Courses in Retailing or Merchandising	[ ]	[ ]	[ ]
HMECON3	(41)	Courses in Home Economics	[ ]	[ ]	[ ]

We want to know how helpful people are in assisting recent high school graduates to get jobs or join the military. When I list a source of assistance, tell me whether they were not at all helpful, provided some help, or provided a lot of help:

			Not at All	Some	A Lot	Don't Know
FAMILY3	(42)	Family or Friend	[ ]	[ ]	[ ]	[ ]
AGENCY3	(43)	School or Agency (for example school counselors, training program, placement offices, etc.)	[ ]	[ ]	[ ]	[ ]
YOU3	(44)	Yourself, with Little Help	[ ]	[ ]	[ ]	[ ]

Now we want to ask you some questions about life in general. There are no right or wrong answers to these questions. Please respond by telling me what you believe is the closest to the truth.

We want to know how frequently you have experienced the situation that is stated in each of the following sentences that I will read to you. The categories you can answer are never (meaning you have never had the experience), rarely, sometimes, often, or always (meaning that the experience is always with you). Please tell me which category comes closest to what you believe is the truth. The first sentence is:

			Never	Rarely	Some-times	Often	Always	Don't Know
HMSAT3	(45)	I feel good about my living arrangements; that is I feel good about where I live, who I live with, and the accomodations where I live. Do you have this experience?	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]
EDUCSAT3	(46)	I am satisfied with the training and education I have received so far in school	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]
PHLTH3	(47)	In general I am satisfied with my physical health.	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]
MHLTH3	(48)	In general I am satisfied with my mental health.	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]
SOCSAT3	(49)	I participate in clubs or other organizations in my community.	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]
MOBSAT3	(50)	I am able to get out and do things outside of my home when I want.	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]
CTRLSAT3	(51)	I am satisfied with my ability to choose and organize my own activities.	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]
DECSAT3	(52)	Generally, the decisions I have made about my life have turned out well.	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]
LEISSAT3	(53)	I am satisfied with the leisure and recreational opportunities I have.	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]
FRNDSAT3	(54)	I am satisfied with the of friends I have. .	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]
INTMSAT3	(55)	There is someone close to me with whom I can share my most important thoughts and feelings.	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]

Thank you for helping us to understand better what happens to the students that graduate from _____ High School. We will be contacting you again in about six months, and we hope that you will help us keep in touch with you. Your interest and cooperation will be valuable for the high school and for students coming here in future years.

Appendix 5
Follow-up Survey Tracking Sheet

Follow-up Survey Tracking Form

Last Name: _____ First Name: _____ New Last Name (If Applicable): _____

Interpreter Needed: [ ] Yes [ ] No [ ] Unknown IDSTUDNT: [ ][ ][ ][ ][ ][ ]

Class Survey Address: _____ City: _____ State: ___ Zipcode: _____ Phone: ( ) ____ - _____ (Date: __/__/__)

First Contact Phone: ( ) ____ - _____ Second Contact Phone: ( ) ____ - _____ Third Contact Phone: ( ) ____ - _____

School Record Address: _____ City: _____ State: ___ Zipcode: _____ Phone: ( ) ____ - _____ (Date: __/__/__)

Parent or Guardian's Phone: ( ) ____ - _____ Fourth Contact Phone: ( ) ____ - _____ Fifth Contact Phone: ( ) ____ - _____

First New Address: _____ City: _____ State: ___ Zipcode: _____ Phone: ( ) ____ - _____ (Date: __/__/__)

Second New Address: _____ City: _____ State: ___ Zipcode: _____ Phone: ( ) ____ - _____ (Date: __/__/__)

First New Contact Phone: ( ) ____ - _____ Second New Contact Phone: ( ) ____ - _____ Third New Contact Phone: ( ) ____ - _____

Baseline Data Collection: Follow-up Data Collection:

Class Survey:

Date Collected: __/__/__

Confidentiality Waiver:
[ ] Yes
[ ] No

Need Further Data:
[ ] Yes
[ ] No

Comments:

School Records:

Date Collected: __/__/__

Need Further Data:
[ ] Yes
[ ] No

Comments:

First Postcard:

Date Mailed: __/__/__

Returned w/o Call:
[ ] Yes
[ ] No

First Call: __/__/__
[ ] No Answer
[ ] Moved, No Lead
[ ] Answered, Not Home
[ ] Refused
[ ] Sent or Will Send
[ ] Answered Over Phone

Second Call: __/__/__
[ ] No Answer
[ ] Moved, No Lead
[ ] Answered, Not Home
[ ] Refused
[ ] Sent or Will Send
[ ] Answered Over Phone

Third Call: __/__/__
[ ] No Answer
[ ] Moved, No Lead
[ ] Answered, Not Home
[ ] Refused
[ ] Sent or Will Send
[ ] Answered Over Phone

First Phone Interview:

First Call: __/__/__
[ ] No Answer
[ ] Moved, No Lead
[ ] Moved, New Phone
[ ] Answered, Not Home
[ ] Refused
[ ] Interview Complete

Second Call: __/__/__
[ ] No Answer
[ ] Moved, No Lead
[ ] Moved New Phone
[ ] Answered, Not Home
[ ] Refused
[ ] Interview Complete

Third Call: ______
[ ] No Answer
[ ] Moved, No Lead
[ ] Moved, New Phone
[ ] Answered, Not Home
[ ] Refused
[ ] Interview Complete

Fourth Call: __/__/__
[ ] No Answer
[ ] Answered, Not Home
[ ] Refused
[ ] Interview Complete

Second Postcard:

Date Mailed: __/__/__

Returned w/o Call:
[ ] Yes
[ ] No

First Call: __/__/__
[ ] No Answer
[ ] Moved, No Lead
[ ] Answered, Not Home
[ ] Refused
[ ] Sent or Will Send
[ ] Answered Over Phone

Second Call: __/__/__
[ ] No Answer
[ ] Moved, No Lead
[ ] Answered, Not Home
[ ] Refused
[ ] Sent or Will Send
[ ] Answered Over Phone

Third Call: __/__/__
[ ] No Answer
[ ] Moved, No Lead
[ ] Answered, Not Home
[ ] Refused
[ ] Sent or Will Send
[ ] Answered Over Phone

Second Phone Interview:

First Call: __/__/__
[ ] No Answer
[ ] Moved, No Lead
[ ] Moved, New Phone
[ ] Answered, Not Home
[ ] Refused
[ ] Interview Completed

Second Call: __/__/__
[ ] No Answer
[ ] Moved, No Lead
[ ] Moved, New Phone
[ ] Answered, Not Home
[ ] Refused
[ ] Interview Completed

Third Call: __/__/__
[ ] No Answer
[ ] Moved, No Lead
[ ] Moved, New Phone
[ ] Answered, Not Home
[ ] Refused
[ ] Interview Complete

Fourth Call: __/__/__
[ ] No Answer
[ ] Answered, Not Home
[ ] Refused
[ ] Interview Completed

Appendix 6

Instructions for Administering Baseline Classroom Survey

Name of Program Administrator: _____

Name of Class Instructor: _____

Phone of Instructor: ( ) - ____ - _____

Class Title: _____

Program Title: _____

Training Institution: _____

Address: _____ City: _____

Attached you will find blank questionnaires to be administered to your students during the first or last part of the class period.

This questionnaire is the first phase of a follow-up study that will contact your students after they have completed your course and their program of study. This questionnaire is a critical part of this project. It gathers basic information about students that is difficult to gather later, and it prepare students to cooperate with the follow-up interview when it is conducted.

This questionnaire can generally be completed within five minutes.

KEY POINTS TO KEEP IN MIND:

- o Tell your students that this is the first part of a special study that will survey them later and that their cooperation is very important.
- o Make sure that *all* the students in your class fill out the survey unless they specifically refuse.
- o Check the completed sheets for appropriate completion. Full information is very important to the study.
- o If students seem to have difficulty, help them out with the appropriate answers.
- o Provide reassurance that answers will be kept totally confidential. The information is to be used to improve training programs, they will not be identified in any way.

THANK YOU FOR YOUR VALUABLE HELP!

File: H2CH4Xc.DOC (5/22/87)